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DEPARTMENT OF THE INTERIOR
FRANKLIN K. LANE, Secretary

UNITED STATES GEOLOGICAL SURVEY
GEORGE OTIS SMITH, Director

WATER-SUPPLY PAPER 396

PROFILE SURVEYS

IN THE

COLORADO RIVER BASIN IN WYOMING, UTAH, COLORADO, AND NEW MEXICO

PREPARED UNDER THE DIRECTION OF

W. H. HERRON
ACTING CHIEF HYDROGRAPHER

WASHINGTON
GOVERNMENT PRINTING OFFICE
1917

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Water-Supply Paper 386

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47780°—WSP 396—17

PROFILE SURVEYS IN THE COLORADO RIVER BASIN IN WYOMING, UTAH, COLORADO, AND NEW MEXICO.

Prepared under the direction of W. H. HERON, Acting Chief Hydrographer.

INTRODUCTION.

In connection with studies of the utilization of rivers the United States Geological Survey has from time to time made surveys and profiles of some of the more important streams of the country and published the results in its series of water-supply papers. In some parts of the country these surveys were made chiefly to determine the location of power sites on streams adapted to the development of power by low or medium heads of 20 to 100 feet; in others the purpose of the surveys was more closely related to the possibility of storing water at certain points and diverting it for use in irrigation.

The earlier surveys, such as those of Green River above Fontenelle, Wyo., made in 1909 (Pls. I–V) were of a reconnaissance type and as a rule show no contours along the banks. The later surveys are typified by that of the Gila in the vicinity of Cliff and Redrock, N. Mex., made in 1915 (Pls. XLI–XLIII) and show conditions in much greater detail. These later surveys were made by means of plane table and stadia. Elevations are based on heights derived from primary or precise levels of the United States Geological Survey. The maps are made in the field and show not only the outlines of river banks, the islands, the positions of rapids, falls, shoals, and existing dams, and the crossings of all ferries and roads, but the contours of banks to an elevation high enough to indicate the possibility of using the stream.

SURVEYS IN THE COLORADO RIVER BASIN.

The results of surveys in the Colorado River basin here presented include some of the earliest as well as some of the latest river surveys. The streams to which these surveys relate are fully described in Water-Supply Paper 395 (Colorado River and its utilization, by E. C. La Rue), and the plates herewith should be studied in connection with that report.

Studies on the headwaters are represented by 21 plates (I–XXI) showing plans and profiles of the Green and its tributaries above the junction with the Grand, studies on the Grand by 16 plates (XXII–XXXVII) showing plans and profiles above the junction with the Green and 3 plates (XXXVIII–XL) showing plans and profiles along the Gunnison. The surveys of the Green below Gunnison Butte, Utah (Pls. XIII–XXI). were made by the United States Reclamation Service and are published through the cooperation of that bureau. The only work on tributaries below the junction of the Grand and Green is represented by the profiles of the Gila in the vicinity of Cliff and Redrock, N. Mex. (Pls. XLI–XLIII).

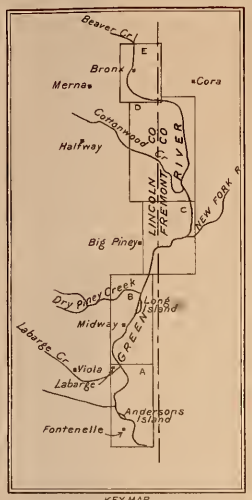
○

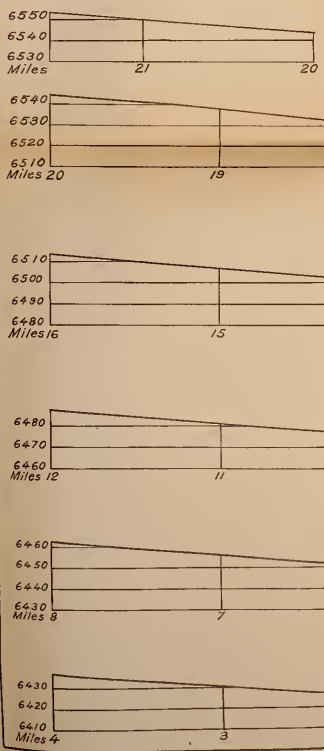
U. S. GEOLOGICAL SURVEY

RECONNAISSANCE PLAN AND PROFILE OF GREEN RIVER ABOVE FONTENELLE, WYOMING

SHEET A

WATER-SUPPLY PAPER 396 PLATE I





R. B. Marshall, Chief Geographer
E. C. Barnard, Geographer in charge
Topography by Chas. A. Leonard
based on General Land Office plats
Surveyed in 1909

DIAGRAM OF TOWNSHIP

Scale 1:125,000

1 0 1 2 Miles
4,000 2,000 0 4,000 8,000 Feet
1 0 1 2 Kilometers

Vertical scale 1 inch = 40 feet
Datum is mean sea level
1916

Subject to adjustment

5 SHEETS

17° TRUE NORTH MAGNETIC NORTH
APPROXIMATE MEAN DECLINATION 1909

House Doc. 64th Cong., 2d Sess.

RECONNAISSANCE
PLAN AND PROFILE OF
GREEN RIVER
ABOVE FONTENELLE, WYOMING

U S GEOLOGICAL SURVEY

SHEET 8

WATER-SUPPLY PAPER 396 PLATE II

R B Marshall, Chief Geographer
E C Barnard, Geographer in charge
Topography by Chas A Leonard
based on General Land Office plats
Surveyed in 1909

Scale 31/680
1 0 1 2 Miles
4,000 2,000 0 4,000 8,000 Feet
1 0 1 2 Kilometers

Vertical scale 1 inch = 40 feet
Datum is mean sea level
1916

Subject to adjustment

5 SHEETS

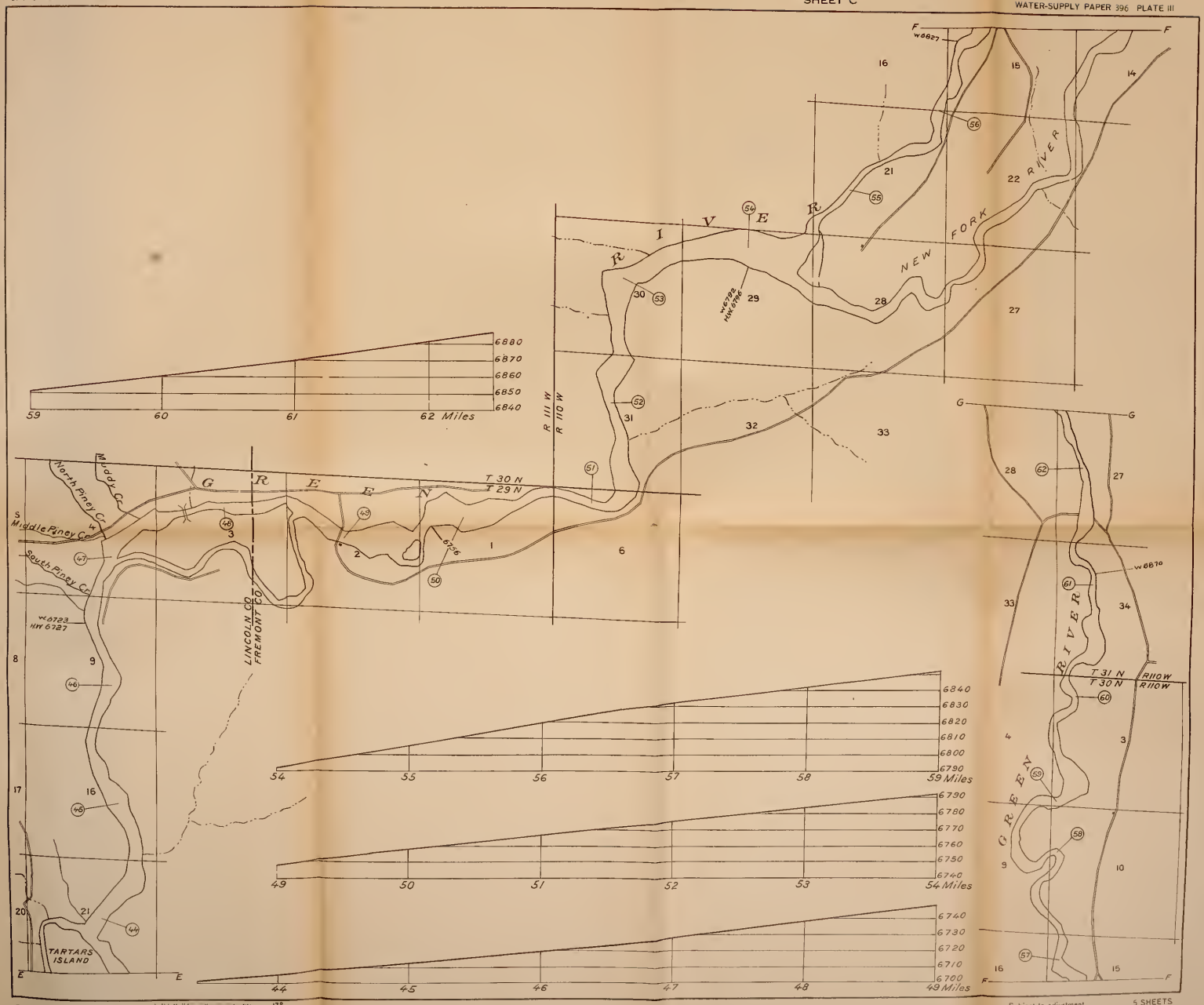
House Doc. 64th Cong., 2d Sess

RECONNAISSANCE
PLAN AND PROFILE OF
GREEN RIVER
ABOVE FONTENELLE, WYOMING

U. S. GEOLOGICAL SURVEY

SHEET C

WATER-SUPPLY PAPER 396 PLATE III



R. B. Marshall, Chief Geographer
E. C. Barnard, Geographer in charge
Topography by Chas. A. Leonard
based on General Land Office plats
Surveyed in 1909

DIAGRAM OF TOWNSHIP

6	5	4	3	2	1	
7	8	9	10	11	12	
18	17	16	15	14	13	
19	20	21	22	23	24	
30	29	28	27	26	25	
31	32	33	34	35	36	

Scale 1:31,680

1 0 1 2 Miles

4,000 2,000 0 4,000 8,000 Feet

1 0 1 2 Kilometers

Vertical scale 1 inch = 40 feet
Datum is mean sea level
1916

17°

TRUE NORTH
MAGNETIC NORTH

APPROXIMATE MEAN DECLINATION 1909

Subject to adjustment

5 SHEETS

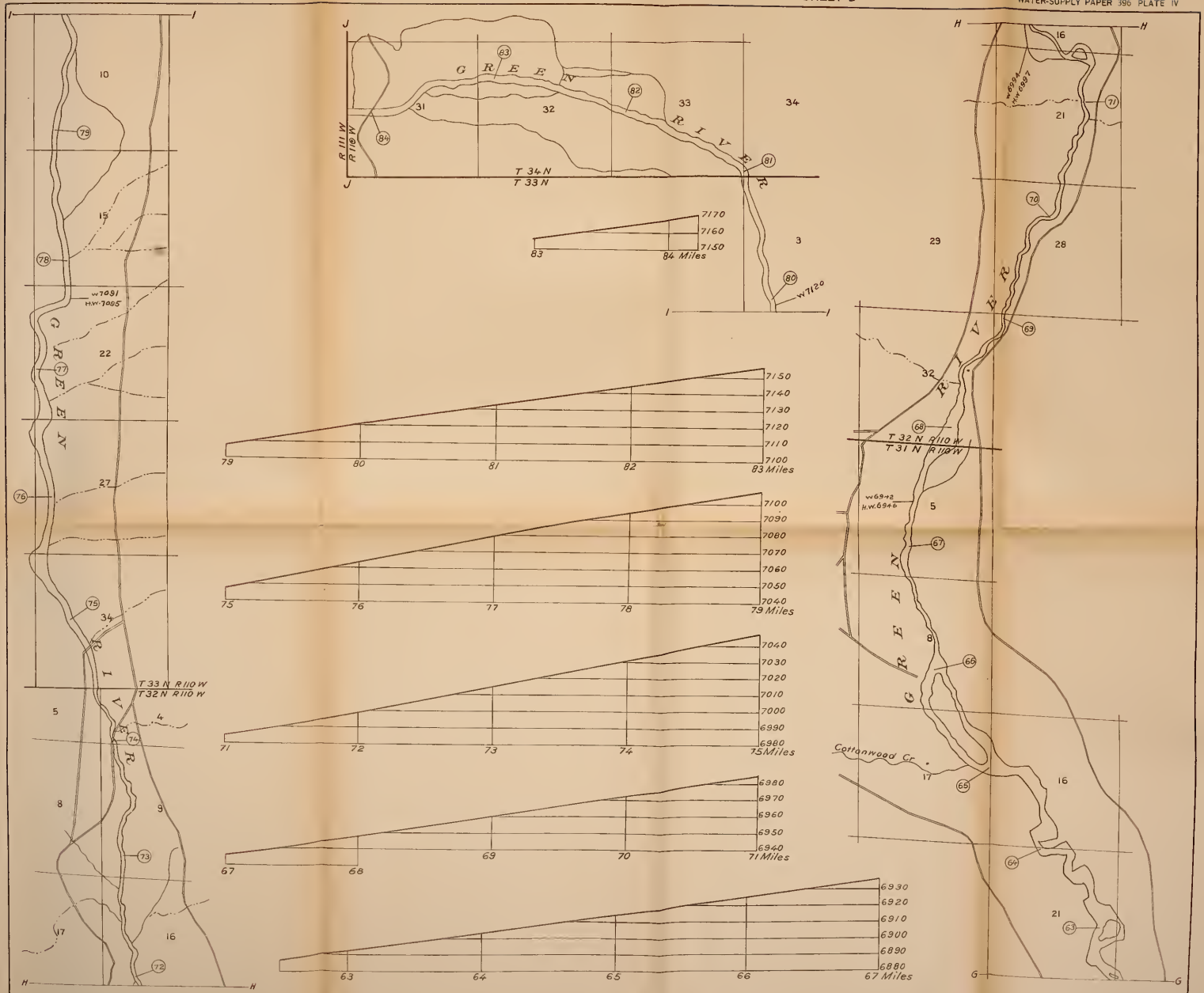
House Doc. ; 64th Cong., 1st. Sess.

U. S. GEOLOGICAL SURVEY

RECONNAISSANCE
PLAN AND PROFILE OF
GREEN RIVER
ABOVE FONTENELLE, WYOMING

SHEET D

WATER-SUPPLY PAPER 396 PLATE IV



R B Marshall, Chief Geographer
E C Barnard, Geographer in charge
Topography by Chas A Leonard
based on General Land Office plats
Surveyed in 1909

DIAGRAM OF TOWNSHIP

Scale 1 inch = 2 Miles
4,000 2,000 0 4,000 8,000 Feet
1 0 1 2 Kilometers

Vertical scale 1 inch = 40 feet
Datum is mean sea level
1916

17°
TRUE NORTH
MAGNETIC NORTH
APPROXIMATE MEAN DECLINATION 1909

Subject to adjustment

5 SHEETS

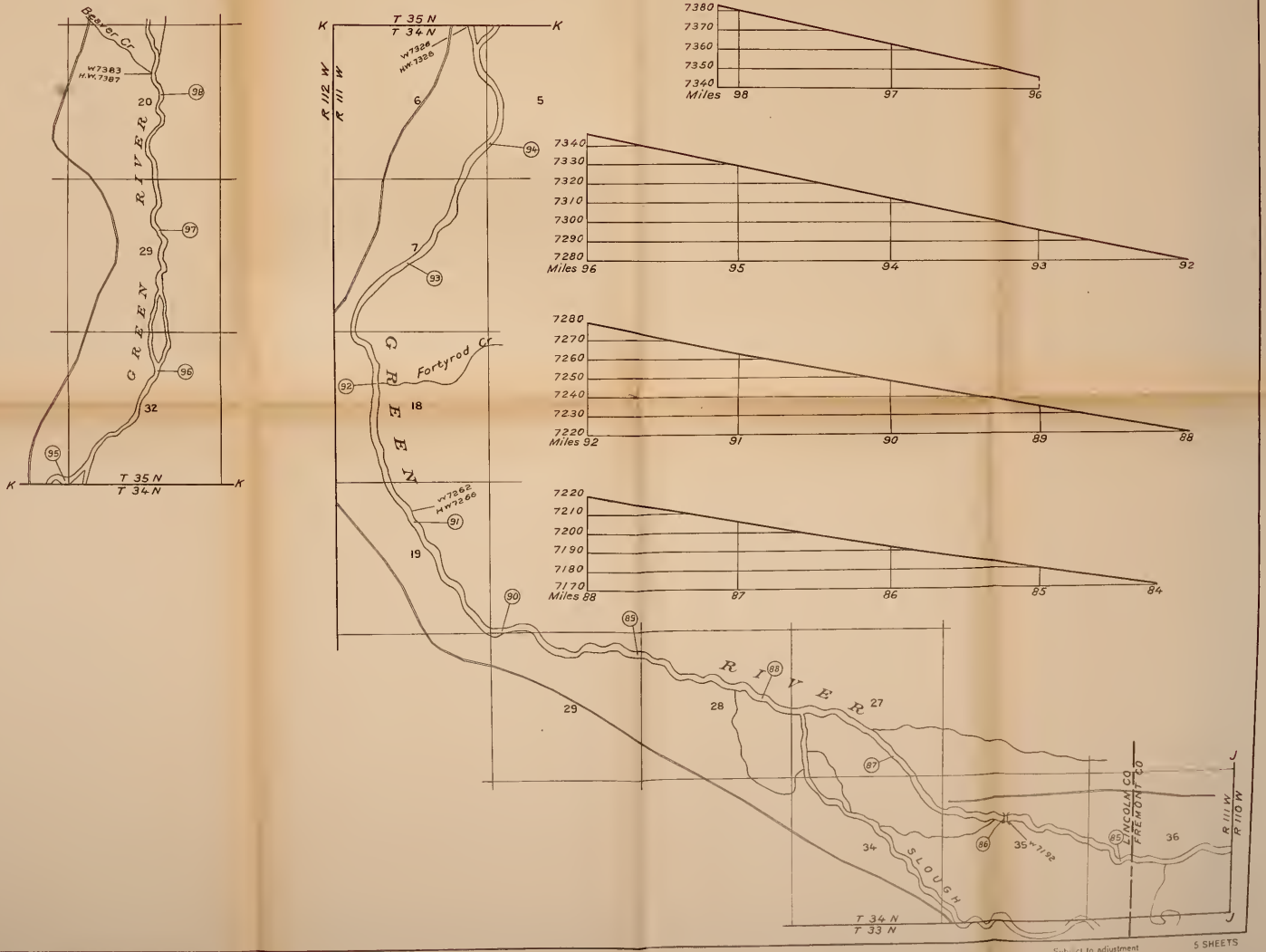
House Doc. 64th Cong., 2d Sess.

U. S. GEOLOGICAL SURVEY

RECONNAISSANCE PLAN AND PROFILE OF GREEN RIVER ABOVE FONTENELLE, WYOMING

SHEET E

WATER-SUPPLY PAPER 396 PLATE V



Subject to adjustment

5 SHEETS

R. B. Marshall, Chief Geographer
E. C. Barnard, Geographer in charge
Topography by Chas. A. Leonard based on General Land Office plats
Surveyed in 1909

DIAGRAM OF TOWNSHIP

Scale 1:62,500
2 Miles
8,000 Feet
2 Kilometers

Vertical scale 1 inch = 40 feet
Datum is mean sea level
1916

TRUE NORTH
MAGNETIC NORTH
APPROXIMATE MEAN DECLINATION 1909

House Doc. 64th Cong., 2d Sess.

U. S GEOLOGICAL SURVEY

RECONNAISSANCE
PLAN AND PROFILE OF
GREEN RIVER
COLORADO STATE LINE TO HORSESHOE BEND, UTAH

SHEET A

WATER-SUPPLY PAPER 396 PLATE VI

KEY MAP

R. B. Marshall, Chief Geographer
E. C. Barnard, Geographer in charge
Topography by Stanley Hargen
based on General Land Office plats
Surveyed in 1909

DIAGRAM OF TOWNSHIP

Scale 1/125,000

2 Miles

4,000 2,000 0 4,000 8,000 Feet

2 Kilometers

Vertical scale 1 inch = 40 feet
Datum is mean sea level
1916

TRUE NORTH
16°
MAGNETIC NORTH
APPROXIMATE MEAN DECLINATION 1908

Subject to adjustment

3 SHEETS

House Doc. ; 64th Cong., 1st. Sess.

RECONNAISSANCE
PLAN AND PROFILE OF
GREEN RIVER
COLORADO STATE LINE TO HORSESHOE BEND, UTAH

U. S. GEOLOGICAL SURVEY

SHEET B

WATER-SUPPLY PAPER 396 PLATE VII

R. B Marshall, Chief Geographer
E. C. Barnard, Geographer in charge
Topography by Stanley Hargen
based on General Land Office plats
Surveyed in 1909

DIAGRAM OF TOWNSHIP

Scale 1 inch = 2 Miles
8,000 Feet
2 Kilometers

Vertical scale 1 inch = 40 feet
Datum is mean sea level
1916

APPROXIMATE MEAN DECLINATION 1909

Subject to adjustment

3 SHEETS

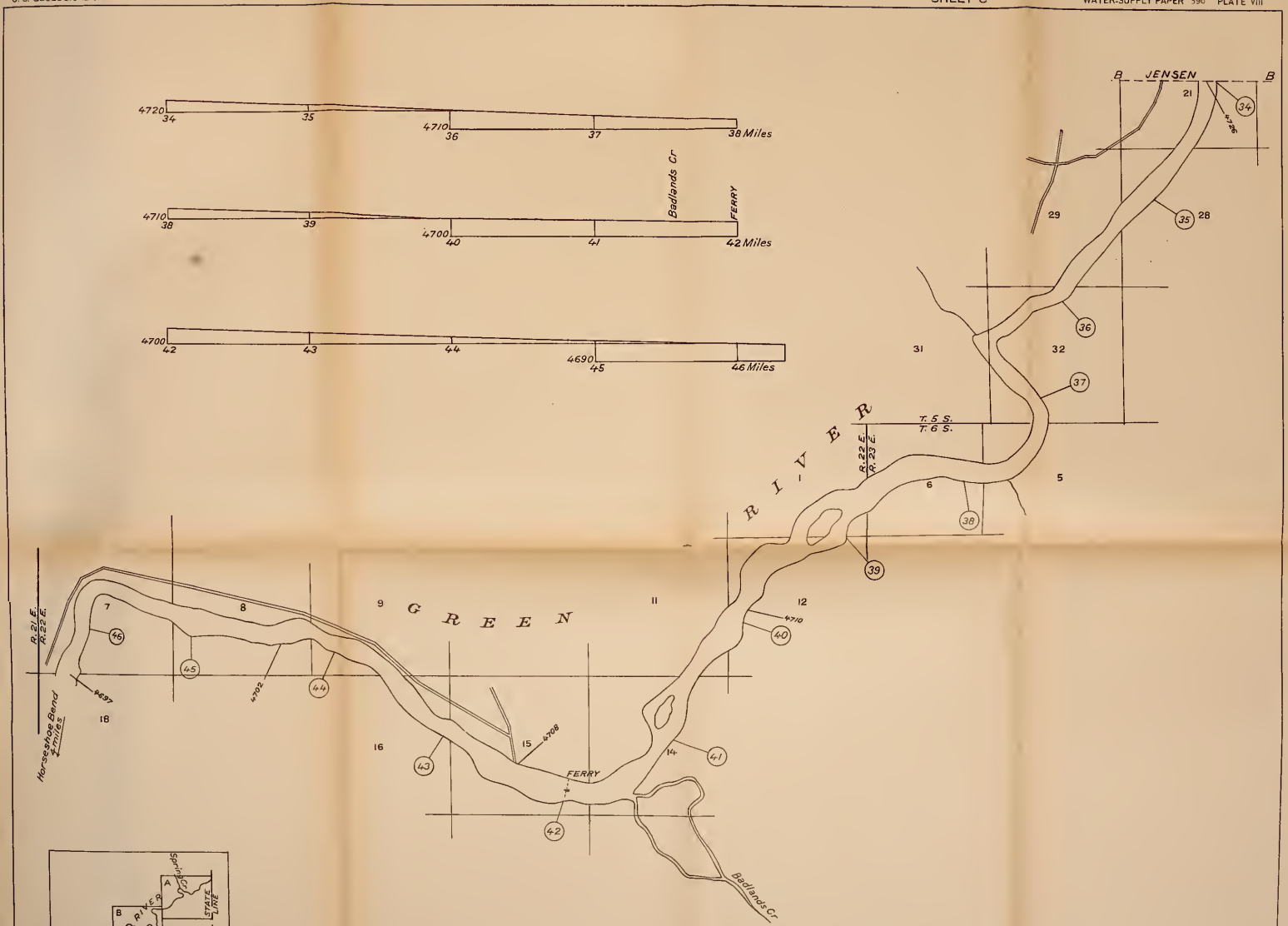
House Doc. : 64th Cong., 1st. Sess

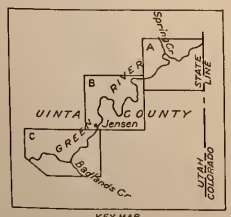
RECONNAISSANCE
PLAN AND PROFILE OF
GREEN RIVER
COLORADO STATE LINE TO HORSESHOE BEND, UTAH

U. S. GEOLOGICAL SURVEY

SHEET C

WATER-SUPPLY PAPER 396 PLATE VIII





KEY MAP

R. B. Marshall, Chief Geographer
E. C. Barnard, Geographer in charge
Topography by Stanley Hargen
based on General Land Office plats
Surveyed in 1909

DIAGRAM OF TOWNSHIP

6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14	13
19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36

Scale 1/31,680
1 0 1 2 Miles
4,000 2,000 0 4,000 8,000 Feet
1 0 1 2 Kilometers

Vertical scale 1 inch = 40 feet
Datum is mean sea level
1916

16°
TRUE NORTH
MAGNETIC NORTH
APPROXIMATE MEAN DECLINATION 1909

Subject to adjustment

3 SHEETS

House Doc. ; 64th Cong., 1st. Sess.

U. S. GEOLOGICAL SURVEY

PLAN AND PROFILE OF GREEN, DUCHESNE, UINTA, AND WHITE RIVERS IN VICINITY OF OURAY, UTAH

SHEET A

WATER-SUPPLY PAPER 396 PLATE IX

R. B. Marshall, Chief Geographer
Geo. R. Davis, Geographer in charge
Topography by Cornelius Schnurr
Surveyed in 1913-1914

DIAGRAM OF TOWNSHIP

Scale 1/31,680

1 ½ 0 1 2 3 4 Miles

5,000 0 5,000 10,000 15,000 Feet

1 ½ 0 1 2 3 4 Kilometers

Contour interval on land 25 feet
Contour interval on river surface 5 feet
Datum is mean sea level
1916

TRUE NORTH
MAGNETIC NORTH
17°
APPROXIMATE MEAN DECLINATION 1916

Subject to adjustment

4 SHEETS
(2 plans, 2 profiles)

House Doc. ; 64th Cong., 1st. Sess.

U. S. GEOLOGICAL SURVEY

PLAN AND PROFILE OF GREEN, DUCHESNE, UINTA, AND WHITE RIVERS IN VICINITY OF OURAY, UTAH

SHEET B

WATER-SUPPLY PAPER 396 PLATE X

R. B. Marshall, Chief Geographer
Geo. R. Davis, Geographer in charge
Topography by Cornelius Schnurr
Surveyed in 1913-1914

DIAGRAM OF TOWNSHIP

Scale 1/48,000

1 ½ 0 1 2 3 4 Miles

5,000 0 5,000 10,000 15,000 Feet

1 ½ 0 1 2 3 4 Kilometers

Contour interval on land 25 feet.
Contour interval on river surface 5 feet
Datum is mean sea level
1916

TRUE NORTH
MAGNETIC NORTH
APPROXIMATE MEAN DECLINATION 1916

Subject to adjustment

4 SHEETS
(2 plans, 2 profiles)

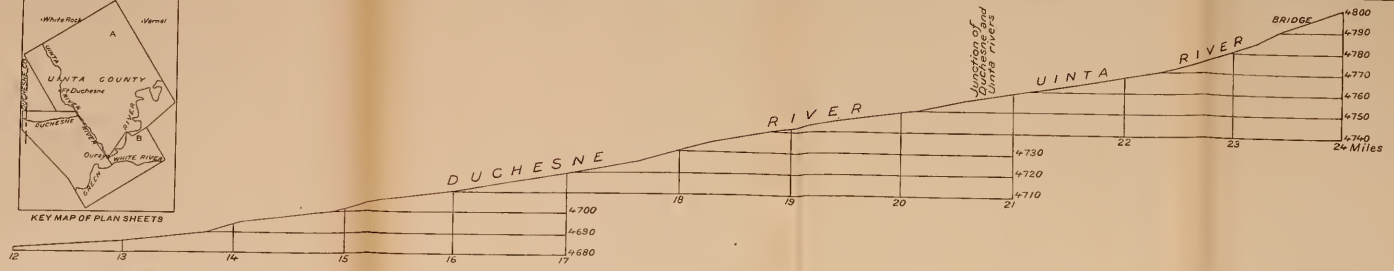
House Doc. : 64th Cong., 1st. Sess.

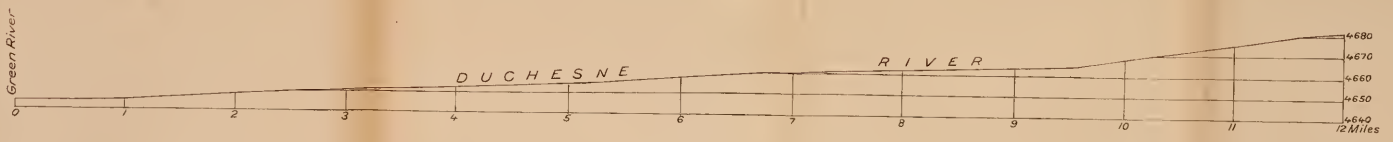
U. S. GEOLOGICAL SURVEY

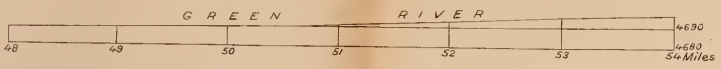
PLAN AND PROFILE OF GREEN, DUCHESNE, UINTA, AND WHITE RIVERS IN VICINITY OF OURAY, UTAH

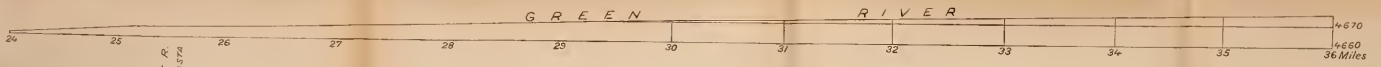
SHEET C

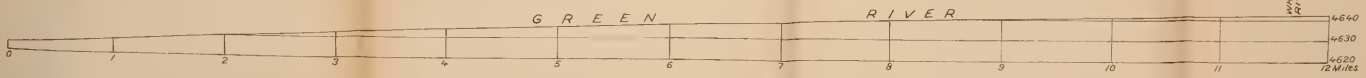
WATER-SUPPLY PAPER 396 PLATE XI

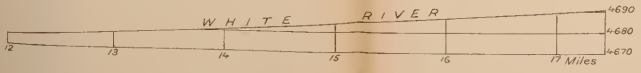


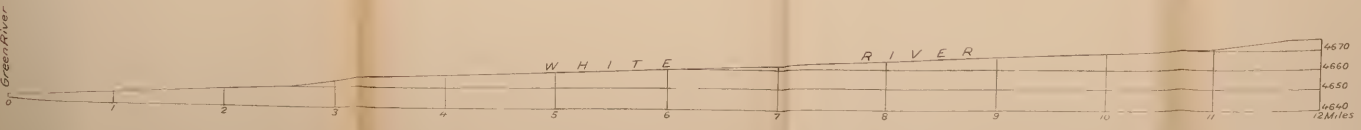












R. B. Marshall, Chief Geographer
Geo. R. Davis, Geographer in charge
Topography by Cornelius Schnurr
Surveyed in 1913-1914

Scale 1:62,500

1 ½ 0 1 2 3 4 Miles

5,000 0 5,000 10,000 15,000 Feet

1 ½ 0 1 2 3 4 Kilometers

Vertical scale 1 inch = 40 feet

Datum is mean sea level

1916

Subject to adjustment

4 SHEETS
(2 plans, 2 profiles)

House Doc. ; 64th Cong., 1st. Sess.

U. S. GEOLOGICAL SURVEY

PLAN AND PROFILE OF GREEN, DUCHESNE, UINTA, AND WHITE RIVERS IN VICINITY OF OURAY, UTAH

SHEET D

WATER-SUPPLY PAPER 396 PLATE XII

R. B. Marshall, Chief Geographer
Geo. R. Davis, Geographer in charge
Topography by Cornelius Schnurr
Surveyed in 1913-1914

Scale 1/48,000

1 ½ 0 1 2 3 4 Miles

5,000 0 5,000 10,000 15,000 Feet

1 ½ 0 1 2 3 4 Kilometers

Vertical scale 1 inch = 40 feet

Datum is mean sea level

1916

Subject to adjustment

4 SHEETS
(2 plans, 2 profiles)

House Doc. ; 64th Cong., 1st. Sess.

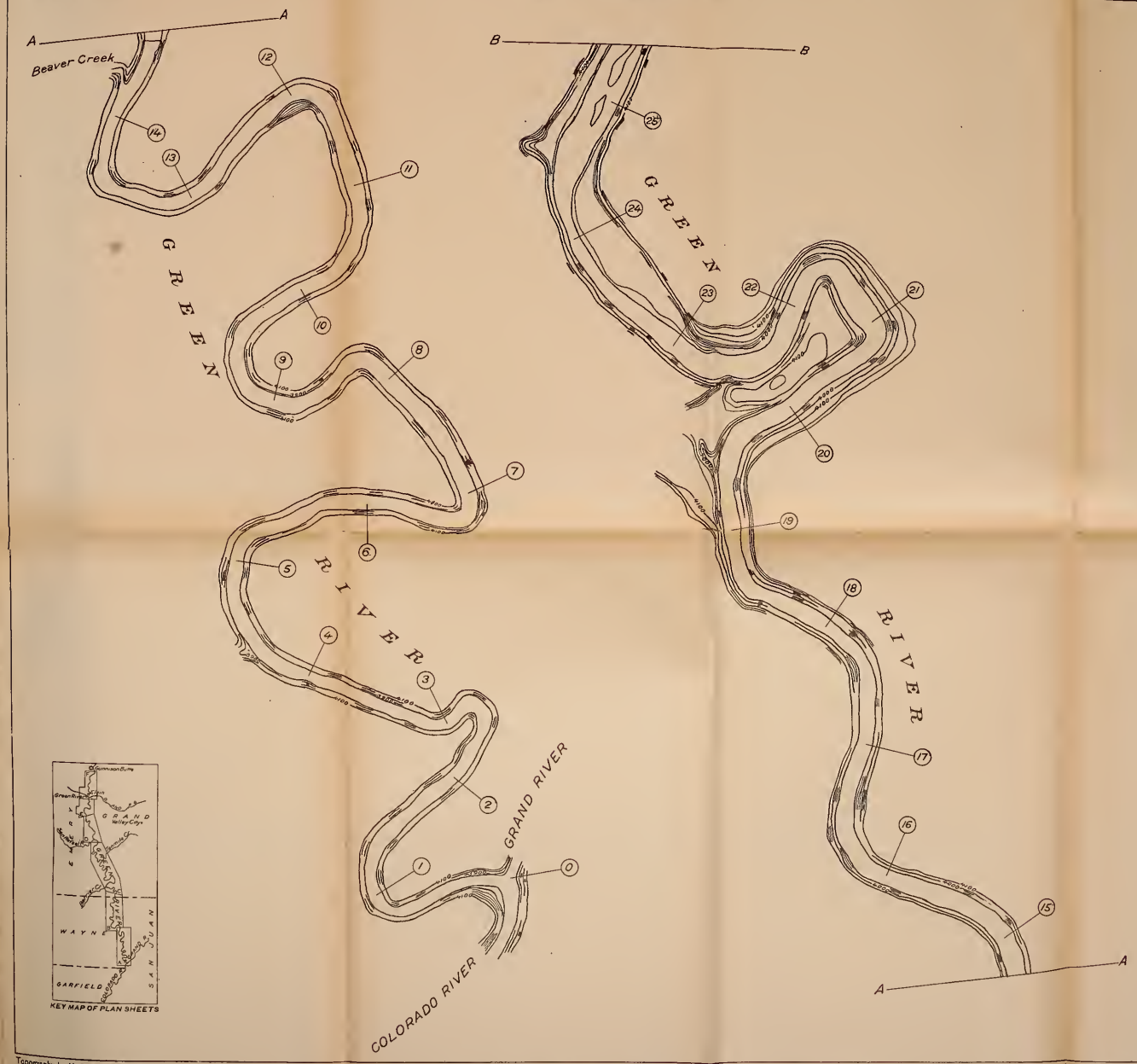
25 feet

U. S. GEOLOGICAL SURVEY

PLAN AND PROFILE OF GREEN RIVER MOUTH TO GUNNISON BUTTE, UTAH

SHEET A

WATER-SUPPLY PAPER 396 PLATE XIII



KEY MAP OF PLAN SHEETS

Topography by U. S. Reclamation Service
Surveyed in 1914

Scale 1/31,680

1 0 1 2 Miles

4,000 2,000 0 4,000 8,000 Feet

1 0 1 2 Kilometers

Contour interval on land and river surface 25 feet
Datum is mean sea level
1916

TRUE NORTH
16°
MAGNETIC NORTH
APPROXIMATE MEAN DECLINATION 1914

Subject to adjustment

9 SHEETS
(6 plans, 3 profiles)

House Doc. ; 64th Cong., 1st Sess.

U. S. GEOLOGICAL SURVEY

PLAN AND PROFILE OF GREEN RIVER MOUTH TO GUNNISON BUTTE, UTAH

SHEET B

WATER-SUPPLY PAPER 396 PLATE XIV

KEY MAP OF PLAN SHEETS

Topography by U. S. Reclamation Service
Surveyed in 1914

Scale 1:63,360

1 0 1 2 Miles

4,000 2,000 0 4,000 8,000 Feet

1 0 1 2 Kilometers

Contour interval on land and river surface 25 feet
Datum is mean sea level
1916

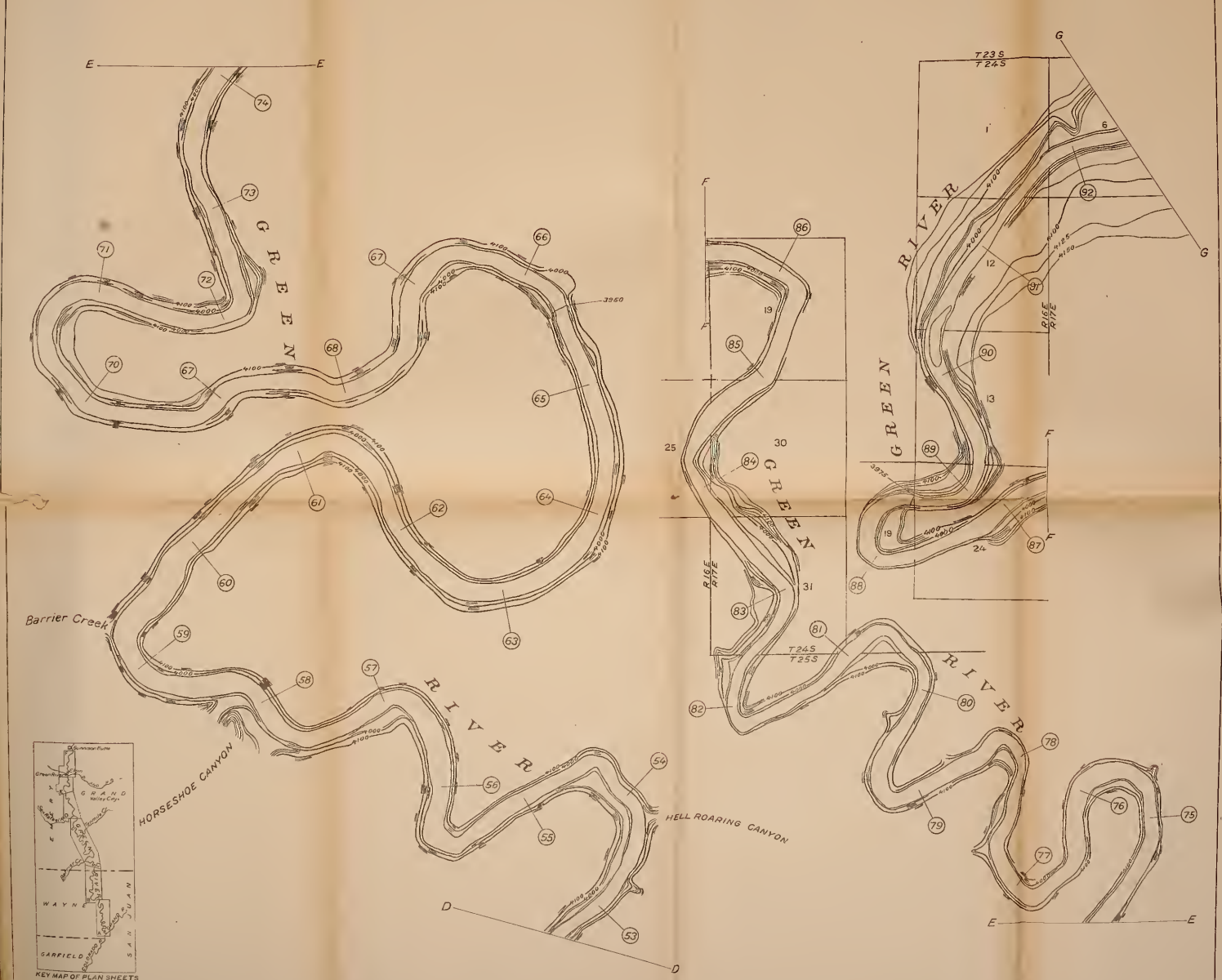
Subject to adjustment

9 SHEETS
(6 plans, 3 profiles)

House Doc. ; 64th Cong., 1st Sess.

TRUE NORTH
16°
MAGNETIC NORTH
APPROXIMATE MEAN DECLINATION 1914

PLAN AND PROFILE OF GREEN RIVER MOUTH TO GUNNISON BUTTE, UTAH



Topography by U. S. Reclamation Service
Surveyed in 1914

DIAGRAM OF TOWNSHIP

6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14	13
19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36

Scale 1/250

1 0 1 2 Miles

4,000 2,000 0 4,000 8,000 Feet

1 0 1 2 Kilometers

Contour interval on land and river surface 25 feet
Datum is mean sea level
1916

APPROXIMATE MEAN DECLINATION 1914

Subject to adjustment

9 SHEETS
(6 plans, 3 profiles)

House Doc. : 64th Cong., 1st Sess.

U. S. GEOLOGICAL SURVEY

PLAN AND PROFILE OF GREEN RIVER
MOUTH TO GUNNISON BUTTE, UTAH

SHEET D

WATER-SUPPLY PAPER 396 PLATE XVI

KEY MAP OF PLAN SHEETS

Topography by U. S. Reclamation Service
Surveyed in 1914

DIAGRAM OF TOWNSHIP

6	5	4	3	2	1	
7	8	9	10	11	12	
18	17	16	15	14	13	
19	20	21	22	23	24	
30	29	28	27	26	25	
31	32	33	34	35	36	

Scale 1/125,000

1 0 1 2 Miles

4,000 2,000 0 4,000 8,000 Feet

1 0 1 2 Kilometers

Contour interval on land and river surface 25 feet
Datum is mean sea level
1916

TRUE NORTH
16½°
MAGNETIC NORTH
APPROXIMATE MEAN DECLINATION 1914

Subject to adjustment

9 SHEETS
(6 plans, 3 profiles)

House Doc. ; 64th Cong., 1st Sess.

PLAN AND PROFILE OF GREEN RIVER MOUTH TO GUNNISON BUTTE, UTAH

KEY MAP OF PLAN SHEETS

Topography by U. S. Reclamation Service
Surveyed in 1914

DIAGRAM OF TOWNSHIP

6	5	4	3	2	1	
7	8	9	10	11	12	
18	17	16	15	14	13	
19	20	21	22	23	24	
30	29	28	27	26	25	
31	32	33	34	35	36	

Scale 1:62,500

1 0 1 2 Miles

4,000 2,000 0 4,000 8,000 Feet

1 0 1 2 Kilometers

Contour interval on land and river surface 25 feet
Datum is mean sea level
1916

TRUE NORTH 16° MAGNETIC NORTH

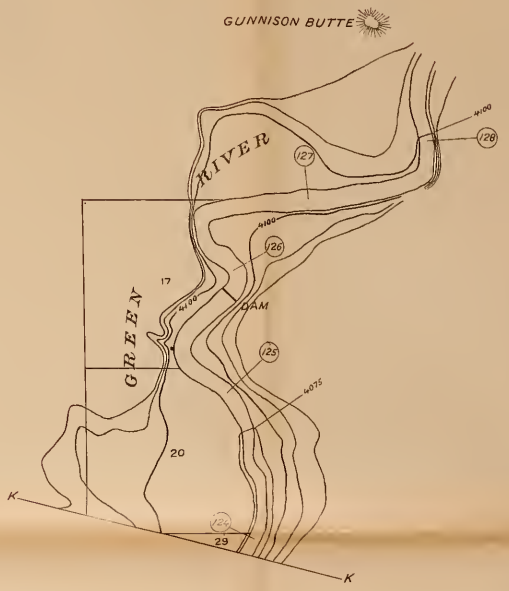
APPROXIMATE MEAN DECLINATION 1914

Subject to adjustment

9 SHEETS
(6 plans, 3 profiles)

House Doc. ; 64th Cong., 1st. Sess.

PLAN AND PROFILE OF GREEN RIVER MOUTH TO GUNNISON BUTTE, UTAH



KEY MAP OF PLAN SHEETS

Topography by U. S. Reclamation Service
Surveyed in 1914

DIAGRAM OF TOWNSHIP

6	5	4	3	2	1	
7	8	9	10	11	12	
18	17	16	15	14	13	
19	20	21	22	23	24	
30	29	28	27	26	25	
31	32	33	34	35	36	

Scale 1:62,500

1 0 1 2 Miles

4,000 2,000 0 4,000 8,000 Feet

1 0 1 2 Kilometers

Contour interval on land and river surface 25 feet
Datum is mean sea level
1916

TRUE NORTH
16°
MAGNETIC NORTH
APPROXIMATE MEAN DECLINATION 1914

Subject to adjustment

9 SHEETS
(6 plans, 3 profiles)

House Doc. ; 64th Cong., 1st Sess.

PLAN AND PROFILE OF GREEN RIVER MOUTH TO GUNNISON BUTTE, UTAH

KEY MAP OF PLAN SHEETS

Topography by U. S. Reclamation Service
Surveyed in 1914

Scale $\frac{1}{31,680}$

1 0 1 2 Miles

4,000 2,000 0 4,000 8,000 Feet

1 0 1 2 Kilometers

Vertical scale 1 inch = 10 feet
Datum is mean sea level
1916

Subject to adjustment

9 SHEETS
(6 plans, 3 profiles)

House Doc ; 64th Cong., 1st. Sess.

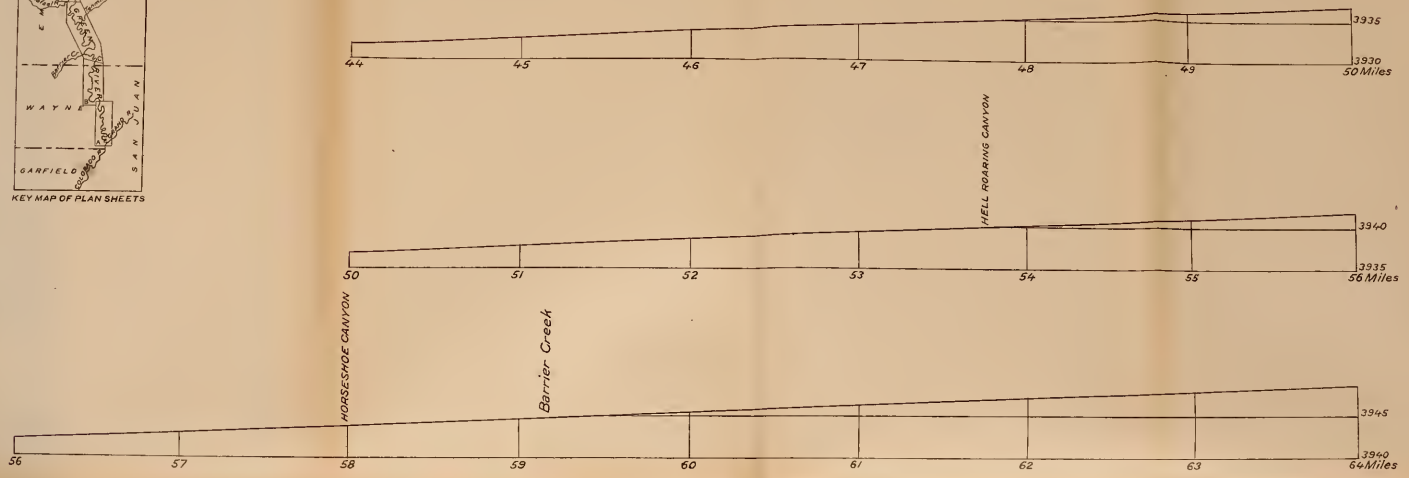
U. S. GEOLOGICAL SURVEY

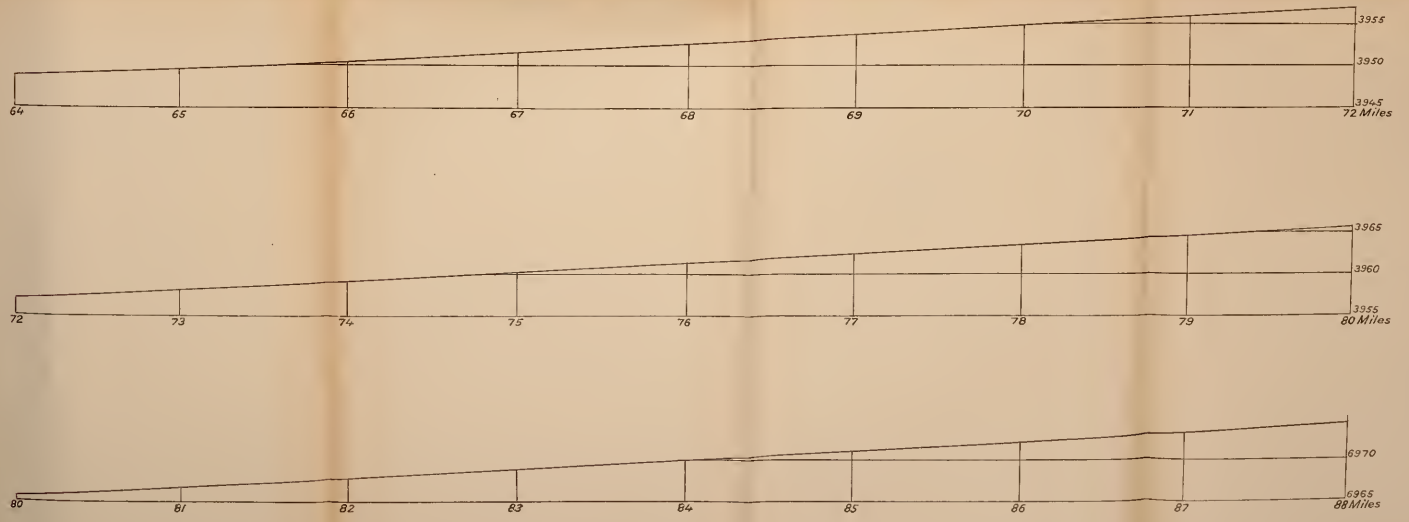
PLAN AND PROFILE OF GREEN RIVER
MOUTH TO GUNNISON BUTTE, UTAH

SHEET H

WATER-SUPPLY PAPER 396 PLATE XX

KEY MAP OF PLAN SHEETS





Topography by U. S. Reclamation Service
Surveyed in 1914

Scale 1/125,000

1 0 1 2 Miles

4,000 2,000 0 4,000 8,000 Feet

1 0 1 2 Kilometers

Vertical scale 1 inch = 10 feet
Datum is mean sea level

1916

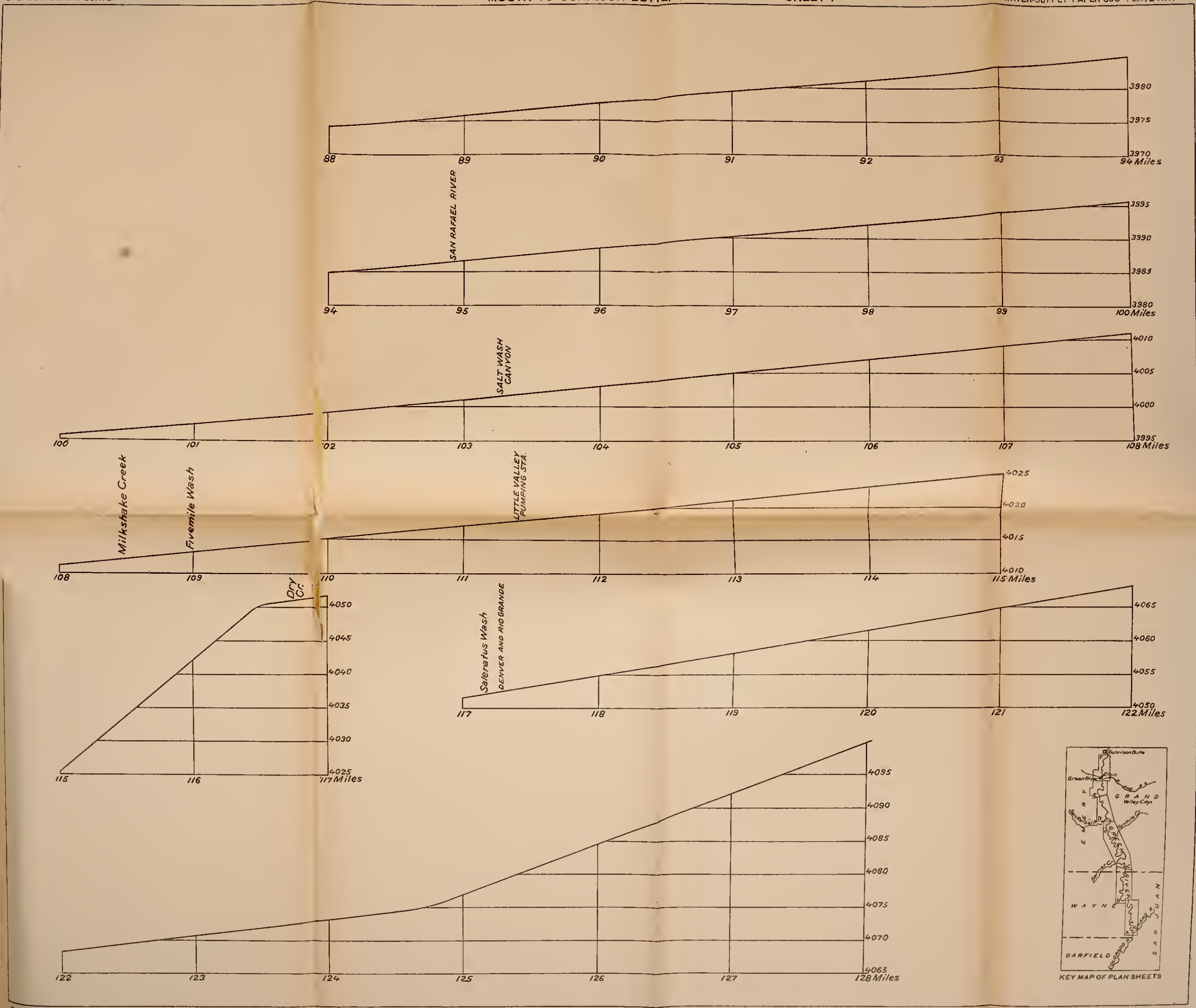
Subject to adjustment

9 SHEETS
(6 plans, 3 profiles)

House Doc. 64th Cong., 2d Sess.

PLAN AND PROFILE OF GREEN RIVER
MOUTH TO GUNNISON BUTTE, UTAH

SHEET 1



Topography by U. S. Reclamation Service
Surveyed in 1914

Scale $\frac{1}{31,680}$

1 0 1 2 Miles

4,000 2,000 0 4,000 8,000 Feet

1 0 1 2 Kilometers

Vertical scale 1 inch = 10 feet
Datum is mean sea level
1916

Subject to adjustment

9 SHEETS
(6 plans, 3 profiles)

House Doc. ; 64th Cong., 1st Sess.

PLAN AND PROFILE OF GRAND RIVER
GREEN RIVER TO CASTLE CREEK, UTAH

KEY MAP SHOWING LOCATION OF SHEETS

R. B. Marshall, Chief Geographer
Sledge Tatum, Geographer in charge
Topography by R. C. Seitz
Surveyed in 1912

Scale 1/31,680

1 0 1 2 Miles

4,000 2,000 0 4,000 8,000 Feet

1 0 1 2 Kilometers

Contour interval on land 25 feet
Contour interval on river surface 5 feet
Datum is mean sea level
1916

Subject to adjustment

TRUE NORTH
MAGNETIC NORTH
APPROXIMATE MEAN DECLINATION 1912

5 SHEETS
(3 plans, 2 profiles)

House Doc. ; 64th Cong., 1st. Sess.

PLAN AND PROFILE OF GRAND RIVER
GREEN RIVER TO CASTLE CREEK, UTAH

KEY MAP SHOWING LOCATION OF SHEETS

R. B. Marshall, Chief Geographer
Sledge Tatum, Geographer in charge
Topography by R. C. Seitz
Surveyed in 1912

Scale 1/31,680

1 0 1 2 Miles

4,000 2,000 0 4,000 8,000 Feet

1 0 1 2 Kilometers

Contour interval on land 25 feet
Contour interval on river surface 5 feet
Datum is mean sea level
1916

Subject to adjustment

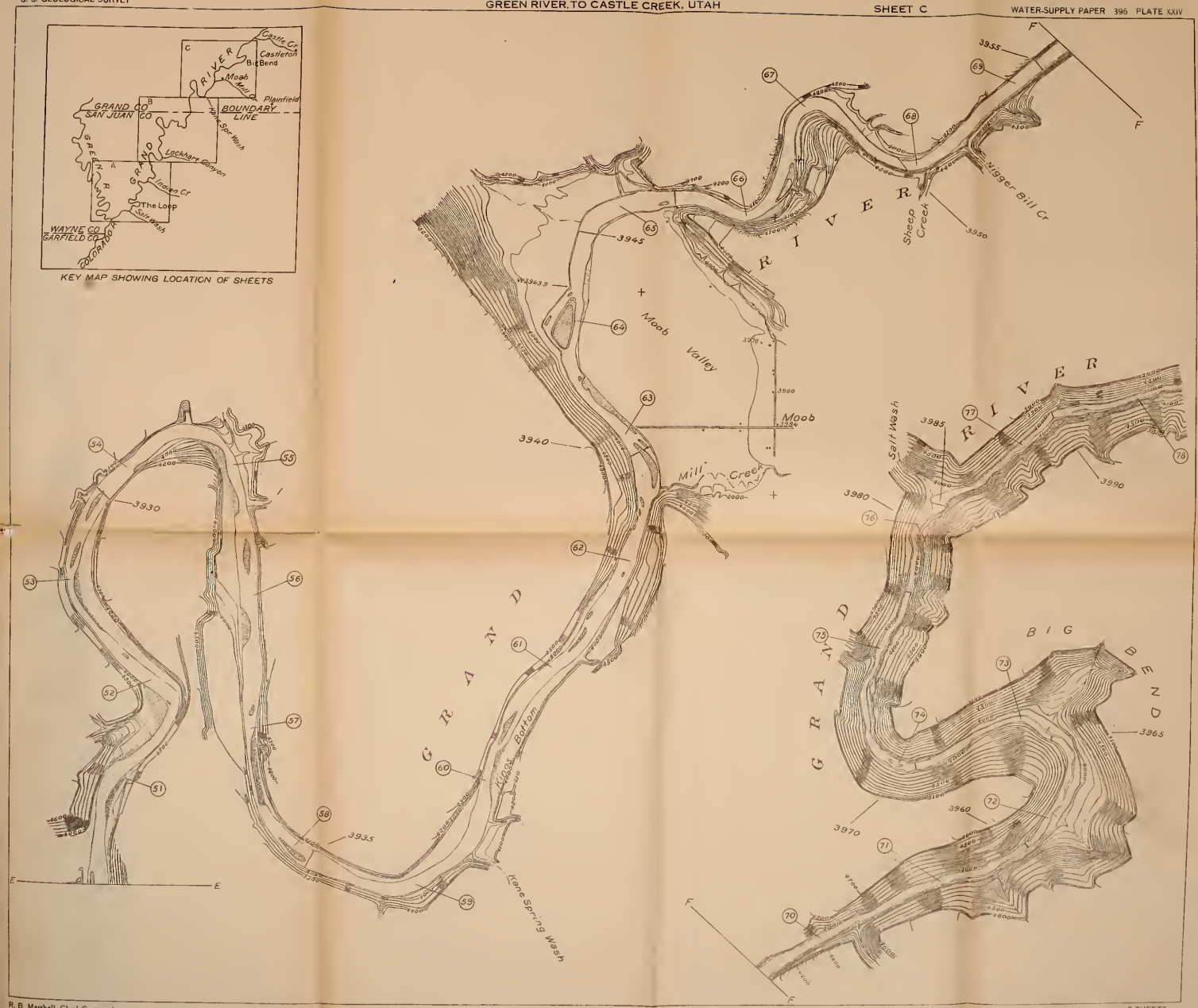
15½°
TRUE NORTH
MAGNETIC NORTH
APPROXIMATE MEAN DECLINATION 1912

5 SHEETS
(3 plans, 2 profiles)

House Doc. ; 64th Cong., 1st. Sess.

PLAN AND PROFILE OF GRAND RIVER
GREEN RIVER TO CASTLE CREEK, UTAH

KEY MAP SHOWING LOCATION OF SHEETS



R. B Marshall, Chief Geographer
Sledge Tatum, Geographer in charge
Topography by R. C. Seitz
Surveyed in 1912

Scale 1:62,500
1 0 1 2 Miles
4,000 2,000 0 4,000 8,000 Feet
1 0 1 2 Kilometers

Contour interval on land 25 feet
Contour interval on river surface 5 feet
Datum is mean sea level
1916

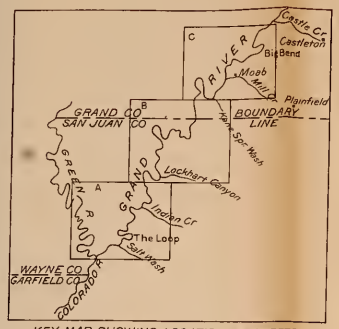
Subject to adjustment

TRUE N. STM
MAGNETIC NORTH
APPROXIMATE MEAN DECLINATION IN 1912

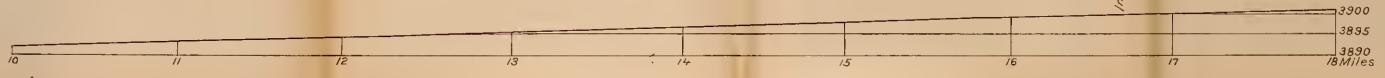
5 SHEETS
(3 plans, 2 profiles)

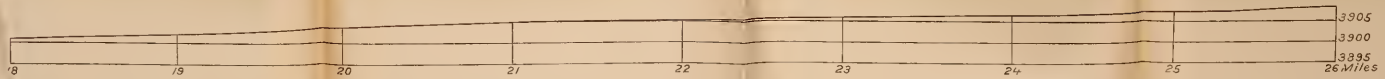
House Doc. ; 64th Cong., 1st. Sess.

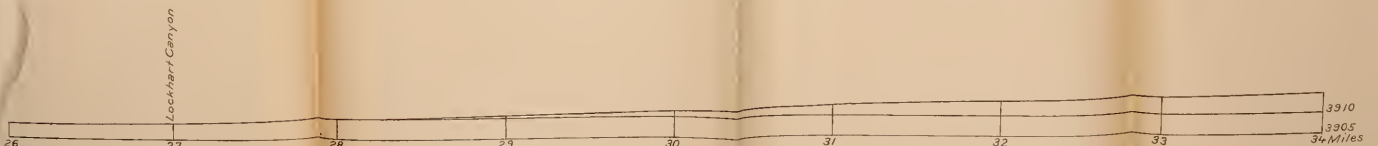
PLAN AND PROFILE OF GRAND RIVER
GREEN RIVER TO CASTLE CREEK, UTAH

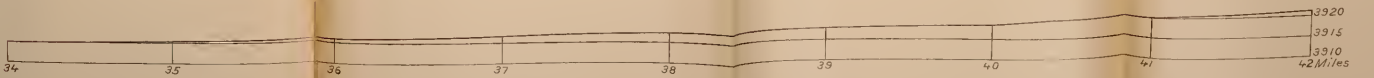


KEY MAP SHOWING LOCATION OF SHEETS









R. B. Marshall, Chief Geographer
Sledge Tatum, Geographer in charge
Topography by R. C. Seitz
Surveyed in 1912

Scale 1:125,000

2 Miles
8,000 Feet
2 Kilometers

Vertical scale 1 inch = 20 feet
Datum is mean sea level

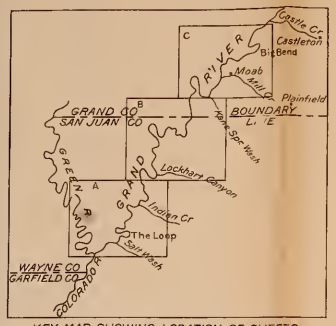
1916

Subject to adjustment

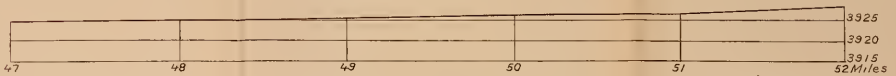
5 SHEETS
(3 plans, 2 profiles)

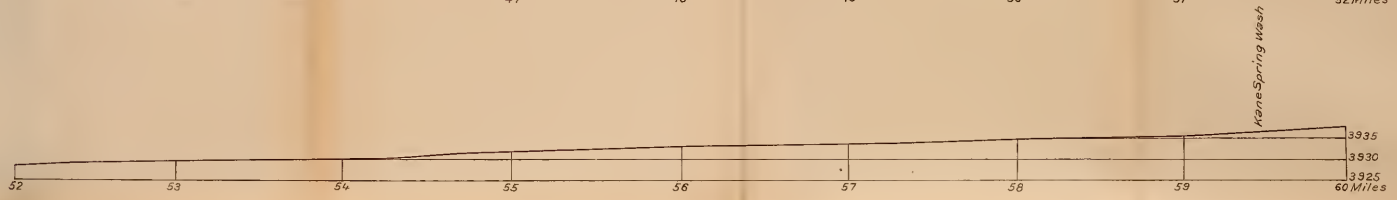
House Doc. ; 64th Cong., 1st. Sess.

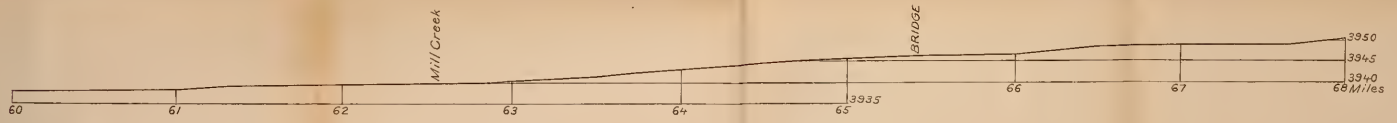
PLAN AND PROFILE OF GRAND RIVER
GREEN RIVER TO CASTLE CREEK, UTAH

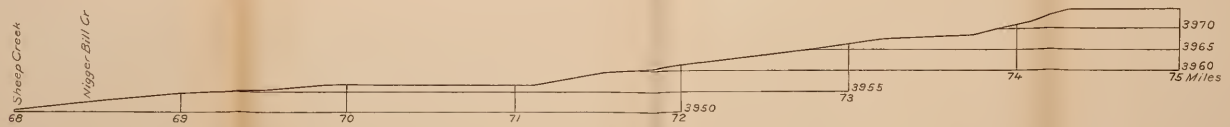


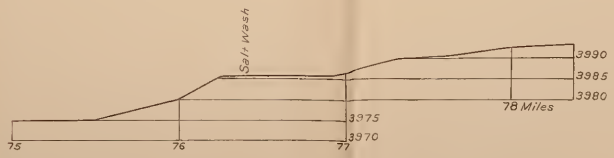
KEY MAP SHOWING LOCATION OF SHEETS











R. B. Marshall, Chief Geographer
Sledge Tatum, Geographer in charge
Topography by R. C. Seitz
Surveyed in 1911

Scale 1/31,680
1 0 1 2 Miles
4,000 2,000 0 4,000 8,000 Feet
1 0 1 2 Kilometers

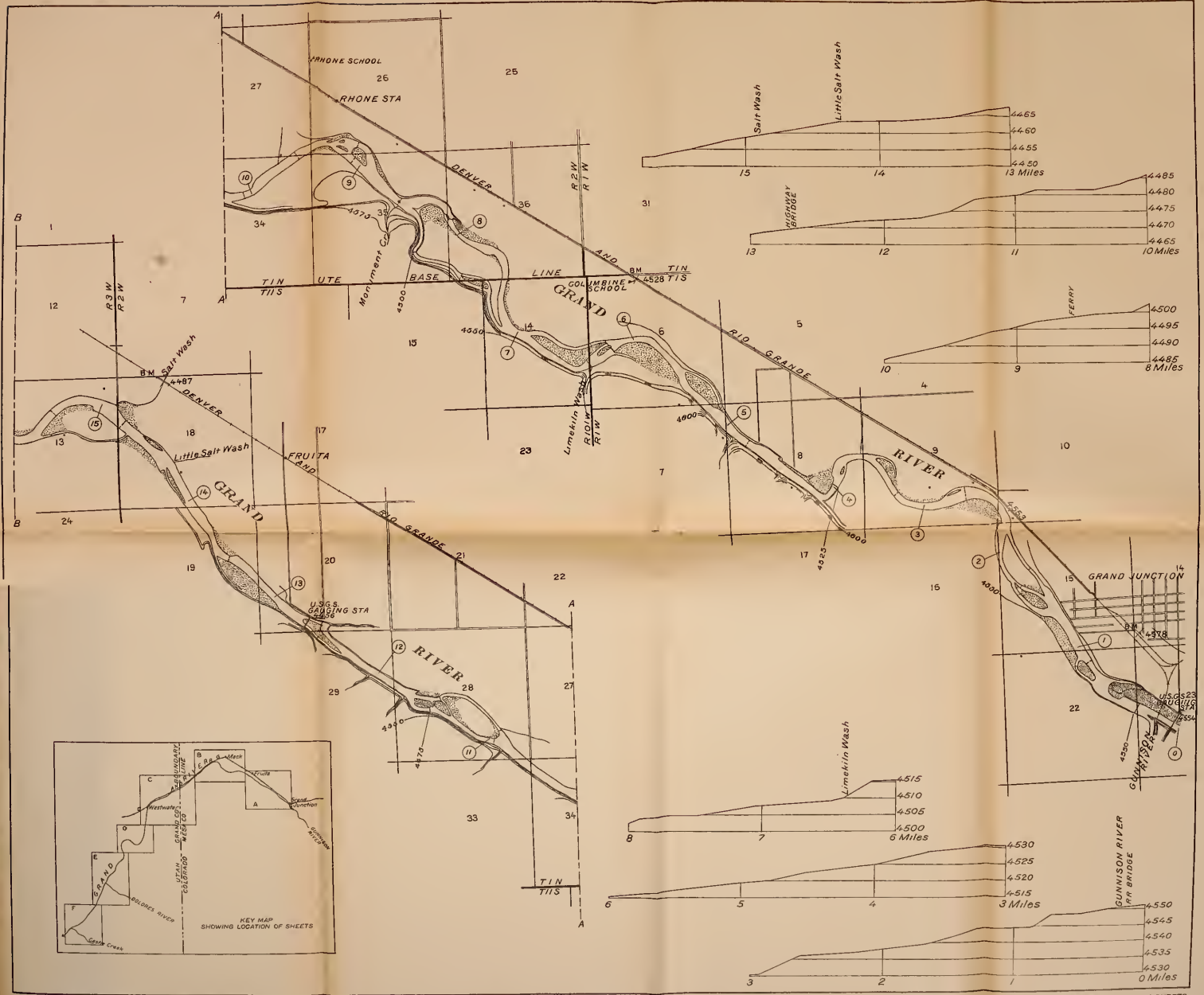
Vertical scale 1 inch = 20 feet
Datum is mean sea level
1916

Subject to adjustment

5 SHEETS
(3 plans, 2 profiles)

House Doc. ; 64th Cong., 1st. Sess.

PLAN AND PROFILE OF GRAND RIVER
GRAND JUNCTION, COLORADO, TO CASTLE CREEK, UTAH



R. B. Marshall, Chief Geographer
Sledge Tetum, Geographer in charge
Topography by R. C. Seitz
Surveyed in 1911

TRUE NORTH
MAGNETIC NORTH
APPROXIMATE MEAN DECLINATION 1911

Scale 1:62,500
1 0 1 2 Miles
4,000 2,000 0 4,000 8,000 Feet
1 0 1 2 Kilometers

Vertical scale 1 inch = 20 feet
Contour interval on land 25 feet
Contour interval on river surface 5 feet
Datum is mean sea level
1916

DIAGRAM OF TOWNSHIP

Subject to adjustment

6 SHEETS

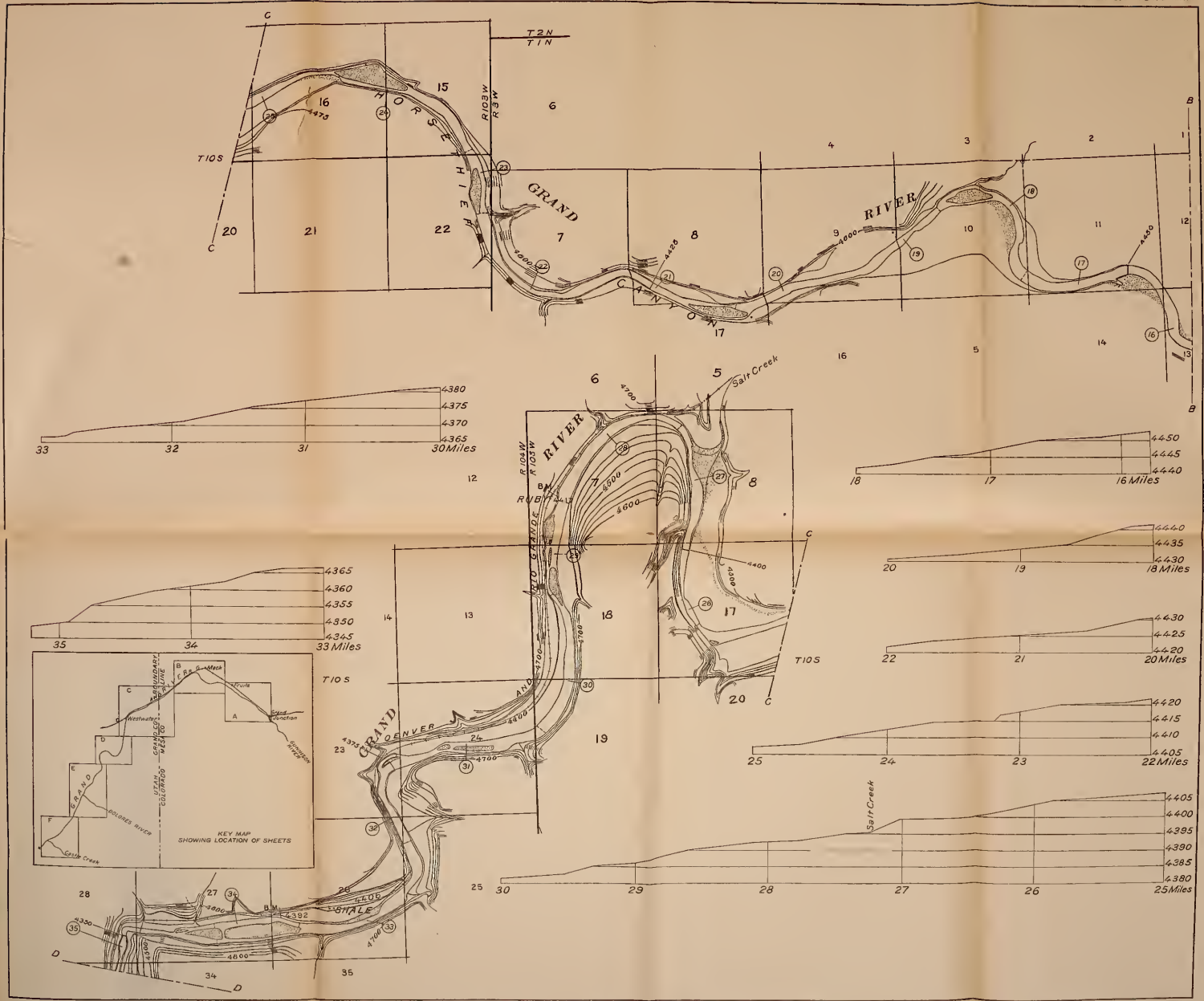
House Doc. 64th Cong., 2d Sess.

U. S. GEOLOGICAL SURVEY

PLAN AND PROFILE OF GRAND RIVER
GRAND JUNCTION, COLORADO, TO CASTLE CREEK, UTAH

SHEET B

WATER-SUPPLY PAPER 396 PLATE XXVIII



R. B. Marshall, Chief Geographer
Sledge Tatum, Geographer in charge
Topography by R. C. Seitz
Surveyed in 1911

APPROXIMATE MEAN DECLINATION 1911

Scale 1:62,500
1 0 1 2 Miles
4,000 2,000 0 4,000 8,000 Feet
1 0 1 2 Kilometers

Vertical scale 1 inch = 20 feet
Contour interval on land 25 feet
Contour interval on river surface 5 feet
Datum is mean sea level
1916

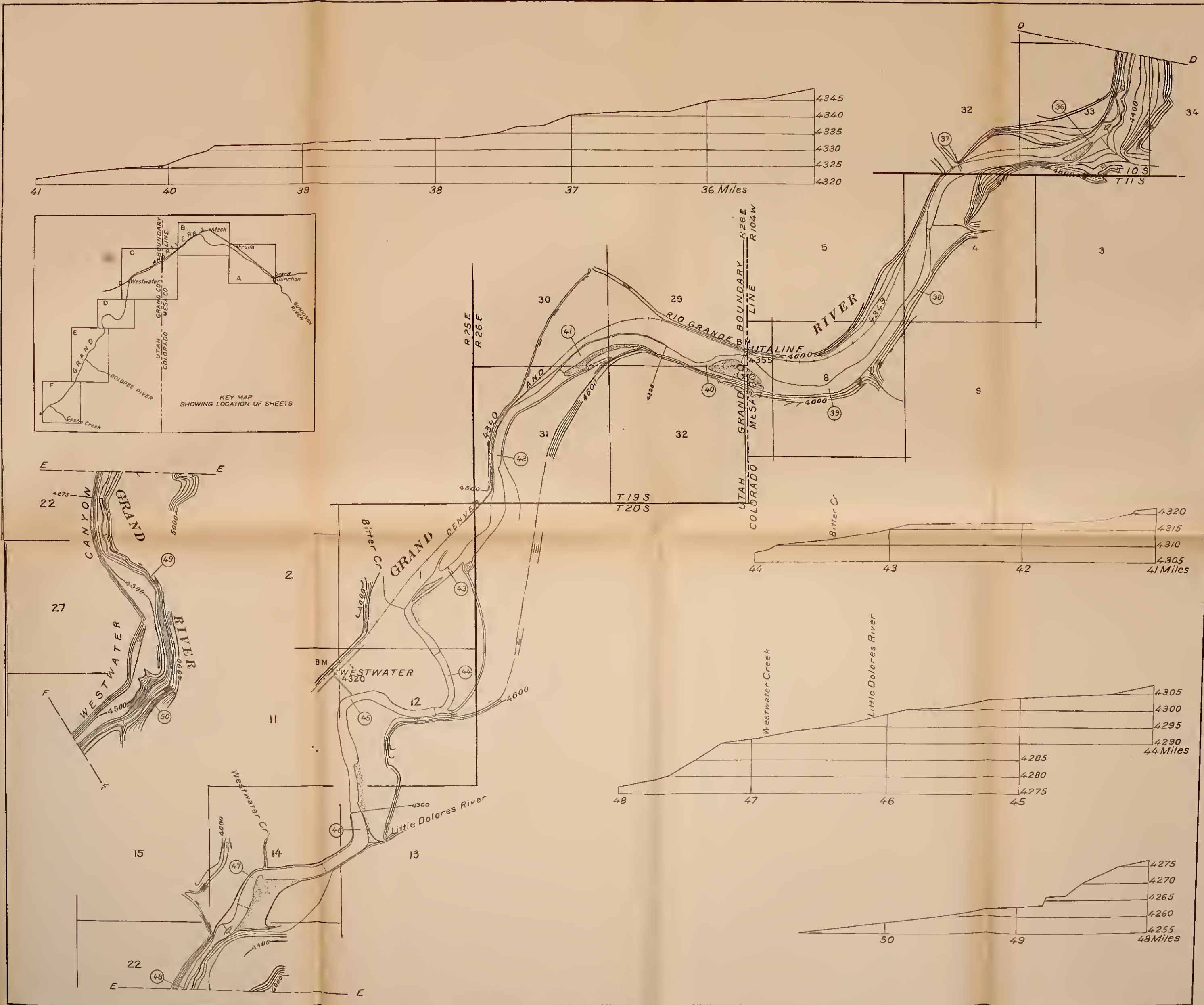
Subject to adjustment

6 SHEETS

House Doc. 64th Cong., 2d Sess.

PLAN AND PROFILE OF GRAND RIVER
GRAND JUNCTION, COLORADO, TO CASTLE CREEK, UTAH

SHEET C



R. B. Marshall, Chief Geographer
Sledge Tatum, Geographer in charge
Topography by R. C. Seitz
Surveyed in 1911

APPROXIMATE MEAN DECLINATION 1911

TRUE NORTH — MAGNETIC NORTH — $16\frac{1}{2}°$

Scale $\frac{1}{31,680}$

1 0 1 2 Miles

4,000 2,000 0 4,000 8,000 Feet

1 0 1 2 Kilometers

Vertical scale 1 inch = 20 feet
Contour interval on land 25 feet
Contour interval on river surface 5 feet
Datum is mean sea level
1916

DIAGRAM OF TOWNSHIP

6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14	13
19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36

Subject to adjustment

6 SHEETS

House Doc. 64th Cong., 2d Sess.

PLAN AND PROFILE OF
GRAND RIVER
GRAND JUNCTION, COLORADO, TO CASTLE CREEK, UTAH

U. S. GEOLOGICAL SURVEY

SHEET D

WATER-SUPPLY PAPER 396 PLATE XXX

R. B. Marshall, Chief Geographer
Sledge Tatum, Geographer in charge
Topography by R. C. Seitz
Surveyed in 1911

Scale 1:62,500

2 Miles
8,000 Feet
2 Kilometers

Vertical scale 1 inch 20 feet
Contour interval on land 25 feet
Contour interval on river surface 5 feet
Datum is mean sea level

1916

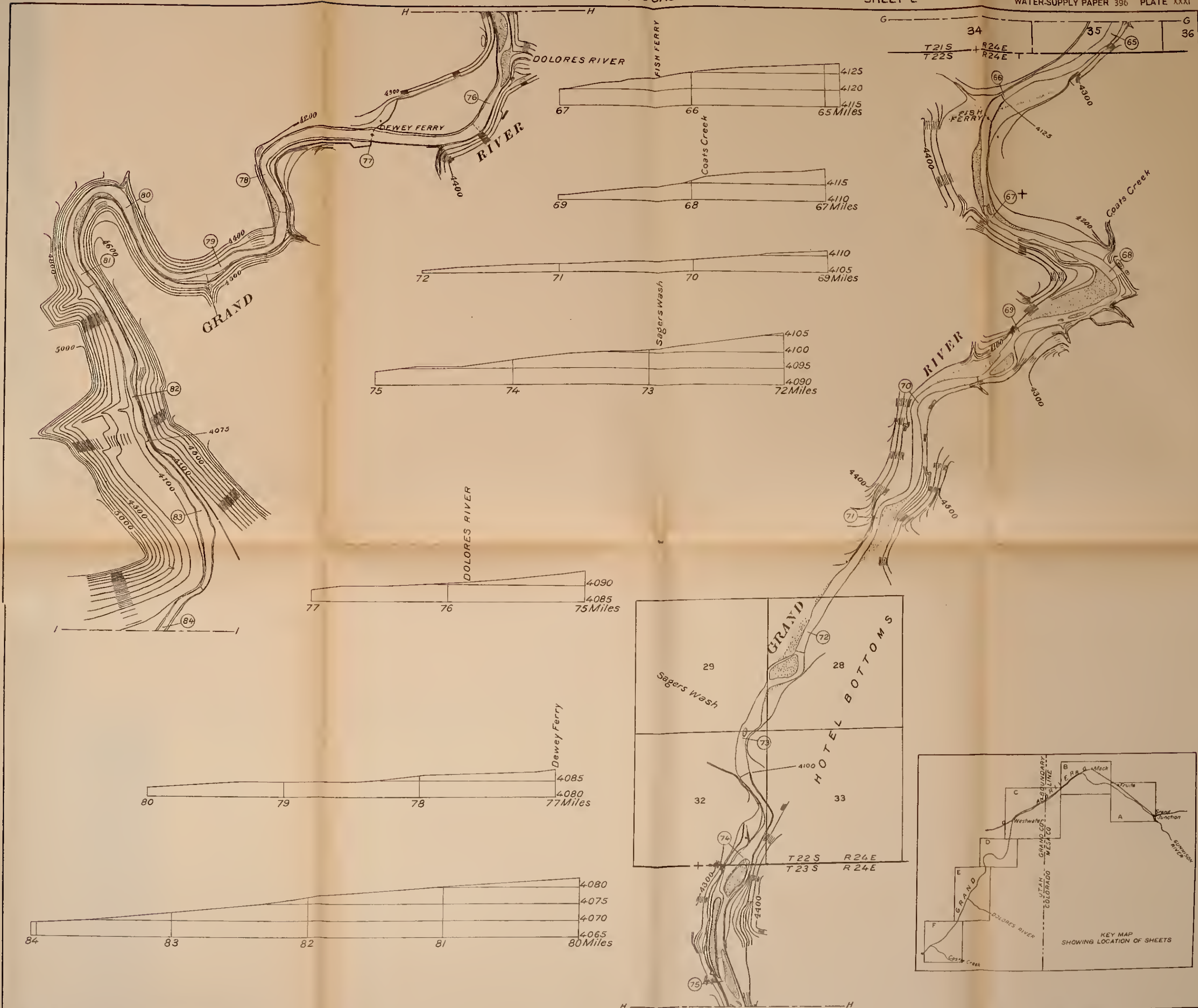
Subject to adjustment

6 SHEETS

House Doc. 84th Cong., 2d Sess.

PLAN AND PROFILE OF
GRAND RIVER
GRAND JUNCTION, COLORADO, TO CASTLE CREEK, UTAH

SHEET E



R. B. Marshall, Chief Geographer
Sledge Tatum, Geographer in charge
Topography by R. C. Seitz
Surveyed in 1911

$15\frac{1}{2}°$
TRUE NORTH
MAGNETIC NORTH
APPROXIMATE MEAN DECLINATION 1911

Scale $\frac{1}{31,680}$

1 0 1 2 Miles

4,000 2,000 0 4,000 8,000 Feet

1 0 1 2 Kilometers

Vertical scale 1 inch 20 feet
Contour interval on land 25 feet
Contour interval on river surface 5 feet
Datum is mean sea level
1916

DIAGRAM OF TOWNSHIP

6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14	13
19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36

Subject to adjustment

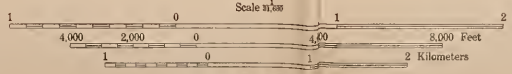
6 SHEETS

House Doc. 64th Cong., 2d Sess.

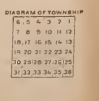
PLAN AND PROFILE OF
GRAND RIVER
GRAND JUNCTION, COLORADO, TO CASTLE CREEK, UTAH

R. B. Marshall, Chief Geographer
Sledge Tatum, Geographer in charge
Topography by R. C. Seitz
Surveyed in 1911

APPROXIMATE MEAN DECLINATION 1911



Vertical scale 1 inch = 20 feet
Contour interval on land 25 feet
Contour interval on river surface 5 feet
Datum is mean sea level
1916

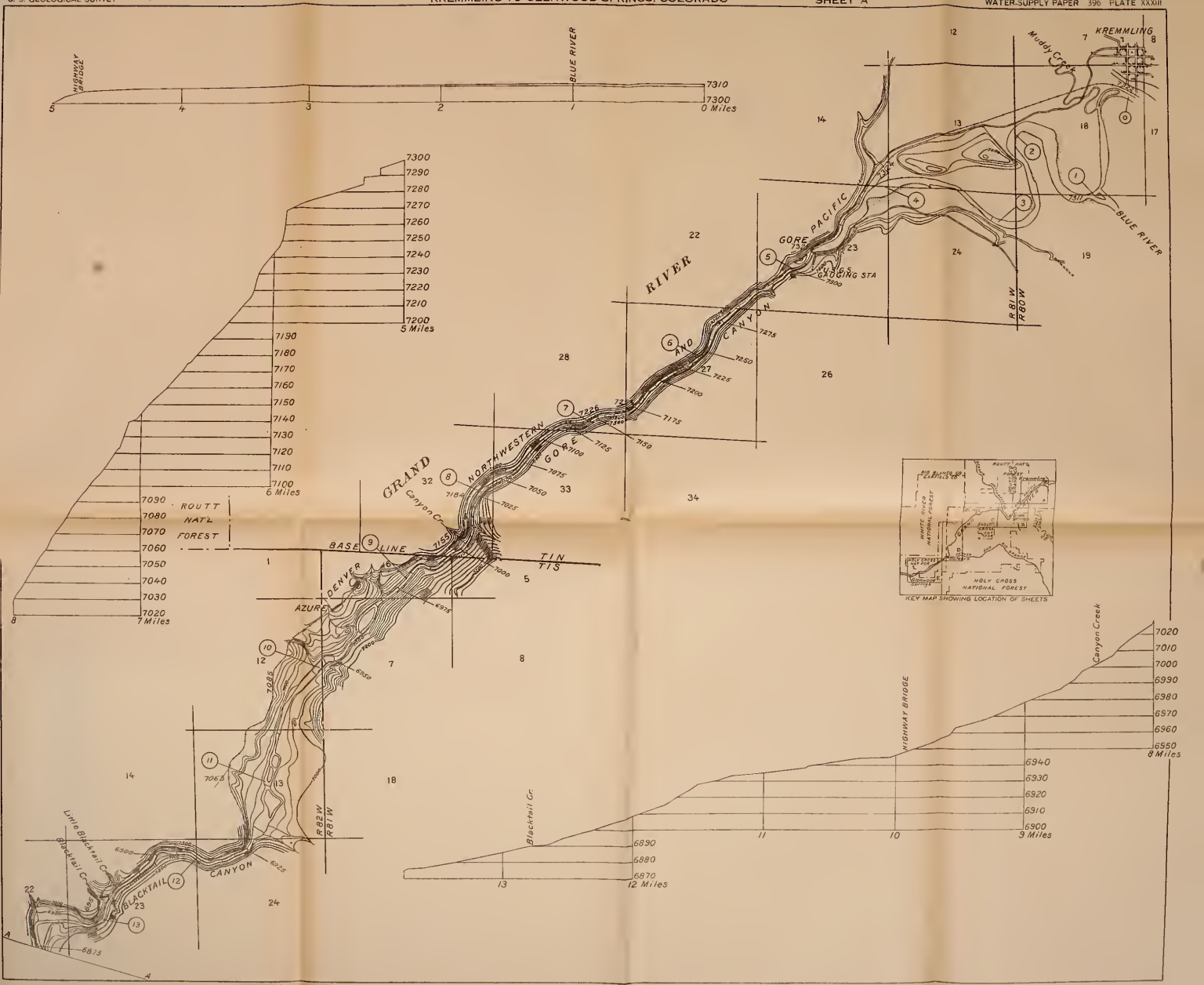


Subject to adjustment

6 SHEETS

House Doc. 64th Cong., 2d Sess.

PLAN AND PROFILE OF GRAND RIVER
KREMMLING TO GLENWOOD SPRINGS, COLORADO



R. B. Marshall, Chief Geographer
Sledge Tatum, Geographer in charge
Topography by R. C. Seitz
Surveyed in 1911

Scale 1:62,500
1 0 1 2 Miles
4,000 2,000 0 4,000 8,000 Feet
1 0 1 2 Kilometers

Vertical scale 1 inch = 40 feet
Contour interval on land 25 feet
Contour interval on river surface 5 feet
Datum is mean sea level
1916

Subject to adjustment

5 SHEETS

House Doc. , 64th Cong., 1st. Sess.

U. S. GEOLOGICAL SURVEY

PLAN AND PROFILE OF GRAND RIVER KREMMLING TO GLENWOOD SPRINGS, COLORADO

SHEET B

WATER-SUPPLY PAPER 396 PLATE XXXIV

R. B. Marshall, Chief Geographer
Sledge Tatum, Geographer in charge
Topography by R. C. Seitz
Surveyed in 1911

APPROXIMATE MEAN DECLINATION 1911

Scale 1 inch = 1 mile

2 Miles
8,000 Feet
2 Kilometers

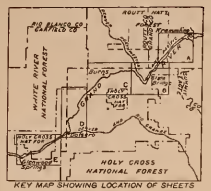
Vertical scale 1 inch = 40 feet
Contour interval on land 25 feet
Contour interval on river surface 5 feet
Datum is mean sea level
1916

Subject to adjustment

5 SHEETS

House Doc. , 64th Cong., 1st. Sess

PLAN AND PROFILE OF GRAND RIVER
KREMMLING TO GLENWOOD SPRINGS, COLORADO



KEY MAP SHOWING LOCATION OF SHEETS

T 1 S
T 2 S

ROUTT CO
EAGLE CO

BOUNDARY LINE

R 84 W
R 83 W

RIVER

GRAND

Cataract Cr

Cabin Cr

Derby Cr

BURNS

Rock Creek

CANYON

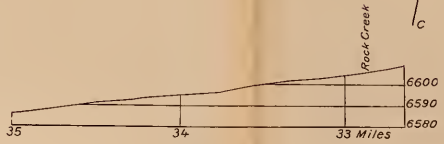
ROUGE

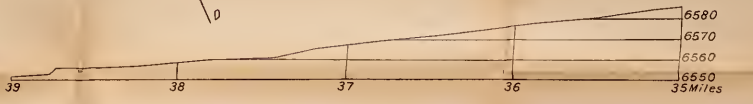
HIGHWAY BRIDGE

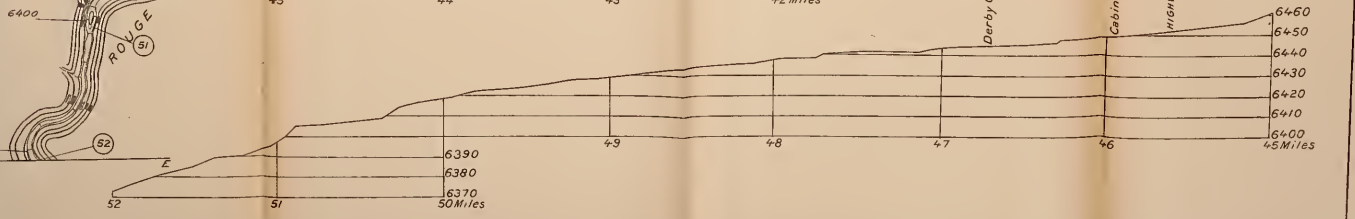
Derby Creek

Cabin Creek

HIGHWAY BRIDGE







R. B. Marshall, Chief Geographer
Sledge Tatum, Geographer in charge
Topography by R. C. Seitz
Surveyed in 1911

APPROXIMATE MEAN DECLINATION 1911

Scale 1/31,680
1 0 1 2 Miles
4,000 2,000 0 4,000 8,000 Feet
1 0 1 2 Kilometers

Vertical scale 1 inch = 40 feet
Contour interval on land 25 feet
Contour interval on river surface 5 feet
Datum is mean sea level
1916

DIAGRAM OF TOWNSHIP

Subject to adjustment

5 SHEETS

House Doc. ; 64th Cong., 1st. Sess.

U. S. GEOLOGICAL SURVEY

PLAN AND PROFILE OF GRAND RIVER
KREMMLING TO GLENWOOD SPRINGS, COLORADO

SHEET D

WATER-SUPPLY PAPER 396 PLATE XXXVI

KEY MAP SHOWING LOCATION OF SHEETS

R. B. Marshall, Chief Geographer
Sledge Tatum, Geographer in charge
Topography by R. C. Seitz
Surveyed in 1912

Scale 1:63,360
1 0 1 2 Miles
4,000 2,000 0 4,000 8,000 Feet
1 0 1 2 Kilometers

Vertical scale 1 inch = 40 feet
Contour interval on land 25 feet
Contour interval on river surface 5 feet
Datum is mean sea level
1916

Subject to adjustment

5 SHEETS

House Doc , 64th Cong., 1st. Sess.

PLAN AND PROFILE OF GRAND RIVER
KREMMLING TO GLENWOOD SPRINGS, COLORADO

R B. Marshall, Chief Geographer
Sledge Tatum, Geographer in charge
Topography by R. C. Seitz
Surveyed in 1911

APPROXIMATE MEAN DECLINATION 1911

Scale 1:62,500

1 0 1 2 Miles
4,000 2,000 0 4,000 8,000 Feet
1 0 1 2 Kilometers

Vertical scale 1 inch = 40 feet
Contour interval on land 25 feet
Contour interval on river surface 5 feet
Datum is mean sea level
1916

DIAGRAM OF TOWNSHIP

Subject to adjustment

5 SHEETS

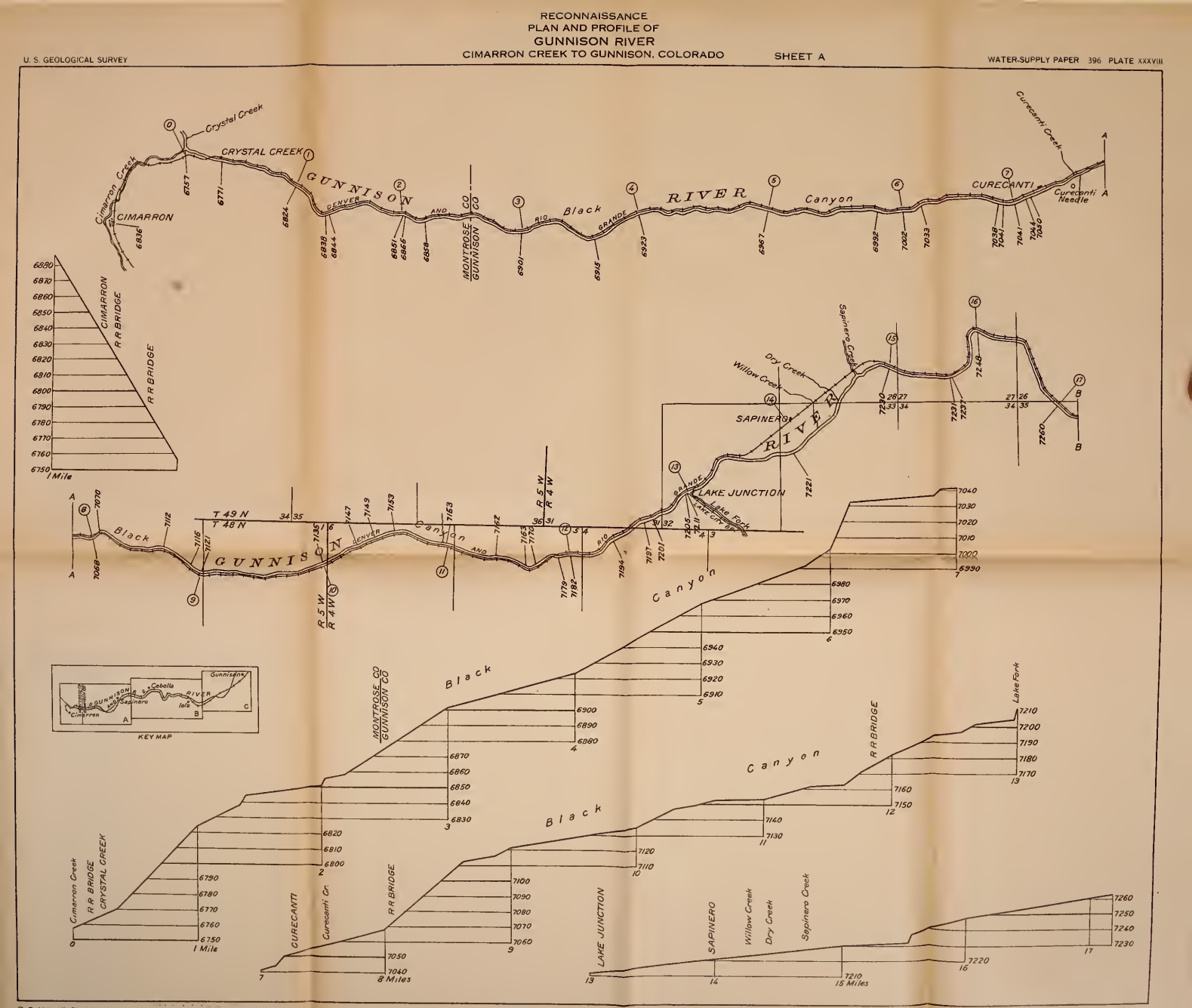
House Doc. ; 64th Cong., 1st. Sess.

U. S. GEOLOGICAL SURVEY

RECONNAISSANCE
PLAN AND PROFILE OF
GUNNISON RIVER
CIMARRON CREEK TO GUNNISON, COLORADO

SHEET A

WATER-SUPPLY PAPER 396 PLATE XXXVIII



R. B. Marshall, Chief Geographer
E. C. Barnard, Geographer in charge
Topography by Stanley Hargen, based on General Land Office plats
Surveyed in 1909

DIAGRAM OF TOWNSHIPS

Scale 1/125,000
1 0 1 2 Miles
4,000 2,000 0 4,000 8,000 Feet
1 0 1 2 Kilometers

Vertical scale 1 inch = 40 feet
Datum is mean sea level
1916

APPROXIMATE MEAN DECLINATION 1909

Subject to adjustment

3 SHEETS

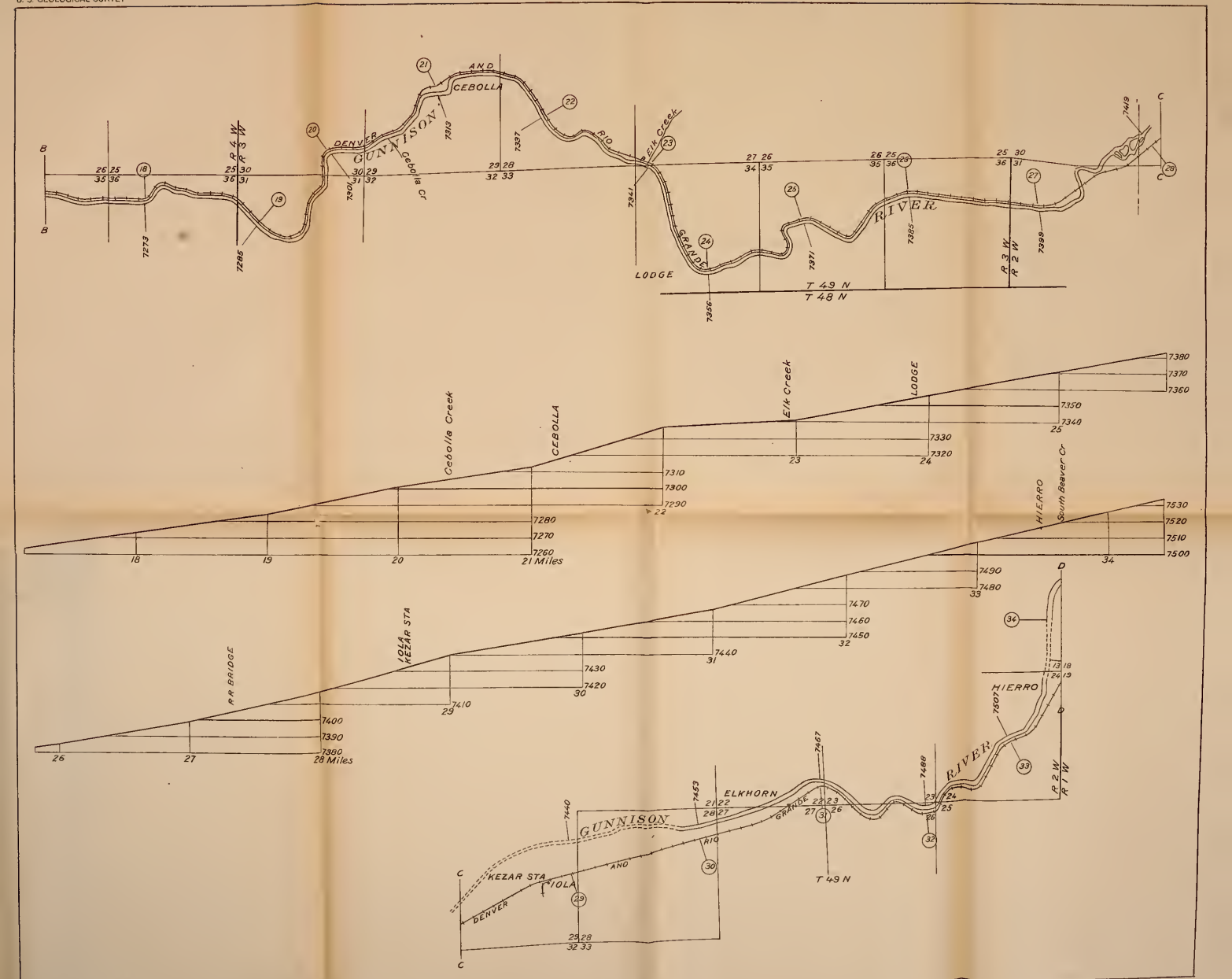
House Doc. : 64th Cong., 1st. Sess.

RECONNAISSANCE
PLAN AND PROFILE OF
GUNNISON RIVER
CIMARRON CREEK TO GUNNISON, COLORADO

U. S. GEOLOGICAL SURVEY

SHEET B

WATER-SUPPLY PAPER 396 PLATE XXXIX



R. B. Marshall, Chief Geographer
E. C. Barnard, Geographer in charge
Topography by Stanley Hargen, based on General Land Office plats
Surveyed in 1909

DIAGRAM OF TOWNSHIP

Scale 1:62500
1 0 1 2 Miles
4,000 2,000 0 4,000 8,000 Feet
1 0 1 2 Kilometers

Vertical scale 1 inch = 40 feet
Datum is mean sea level
1916

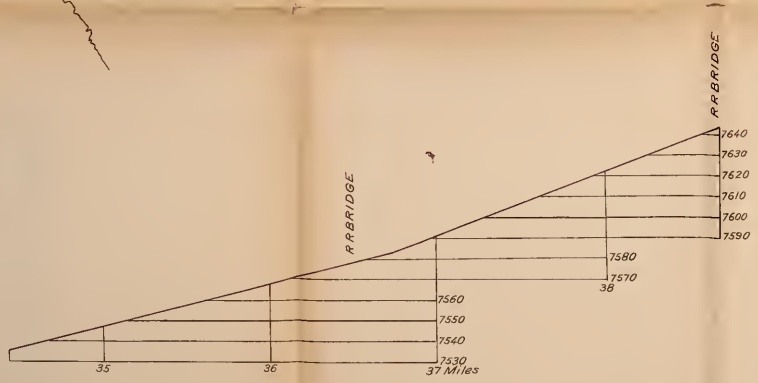
APPROXIMATE MEAN DECLINATION 1907

Subject to adjustment

3 SHEETS

House Doc. ; 64th Cong., 1st. Sess.

RECONNAISSANCE
PLAN AND PROFILE OF
GUNNISON RIVER
CIMARRON CREEK TO GUNNISON, COLORADO



R B Marshall, Chief Geographer
E C. Barnard, Geographer in charge
Topography by Stanley Hargen, based on General Land Office plats
Surveyed in 1909

DIAGRAM OF TOWNSHIP

Scale 1/125,000

1 0 1 2 Miles

4,000 2,000 0 4,000 8,000 Feet

1 0 1 2 Kilometers

Vertical scale 1 inch = 40 feet
Datum is mean sea level

1916

TRUE NORTH
MAGNETIC NORTH
APPROXIMATE MEAN DECLINATION 1909

Subject to adjustment

3 SHEETS

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U. S. GEOLOGICAL SURVEY

PLAN AND PROFILE OF GILA RIVER IN VICINITY OF CLIFF AND REDROCK, NEW MEXICO

SHEET A

WATER-SUPPLY PAPER 396 PLATE XLI

R. B. Marshall, Chief Geographer
Sledge Tatum, Geographer in charge
Topography by R. C. Seitz and C. R. Fisher
Surveyed in 1915

DIAGRAM OF TOWNSHIP

6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14	13
19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36

Scale 1:31,680

1 0 1 2 Miles

4,000 2,000 0 4,000 8,000 Feet

1 0 1 2 Kilometers

Contour interval on land 25 feet.
Contour interval on river surface 5 feet
Datum is mean sea level
1916

TRUE NORTH
MAGNETIC NORTH
13°
APPROXIMATE MEAN DECLINATION 1915

Subject to adjustment

3 SHEETS
(2 plans, 1 profile)

House Doc ; 64th Cong., 1st. Sess

PLAN AND PROFILE OF GILA RIVER IN VICINITY OF CLIFF AND REDROCK, NEW MEXICO

R. B. Marshall, Chief Geographer
Sludge Tatum, Geographer in charge
Topography by R. C. Seitz and C. R. Fisher
Surveyed in 1915

DIAGRAM OF TOWNSHIP

Scale 1:31,680

1 0 1 2 Miles

4,000 2,000 0 4,000 8,000 Feet

1 0 1 2 Kilometers

Contour interval on land 25 feet
Contour interval on river surface 5 feet
Datum is mean sea level
1916

APPROXIMATE MEAN DECLINATION 1915

Subject to adjustment

3 SHEETS
(2 plans, 1 profile)

House Doc., ; 64th Cong., 1st. Sess.

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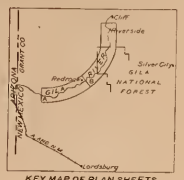
U. S. GEOLOGICAL SURVEY

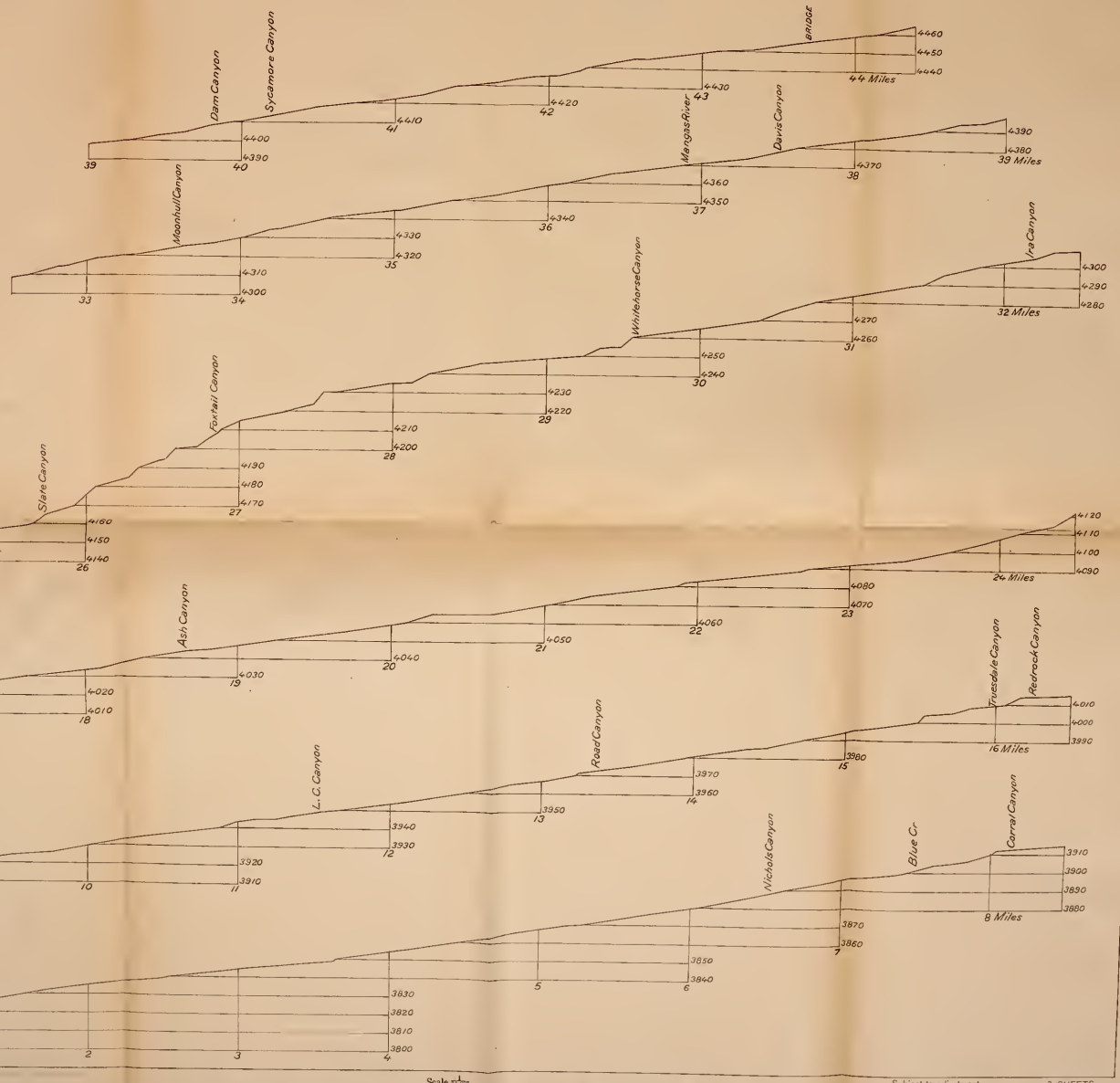
PLAN AND PROFILE OF GILA RIVER IN VICINITY OF CLIFF AND REDROCK, NEW MEXICO

SHEET C

WATER-SUPPLY PAPER 396 PLATE XLIII



KEY MAP OF PLAN SHEETS



R. B. Marshall, Chief Geographer
Sledge Tatum, Geographer in charge
Topography by R. C. Seitz and C. R. Fisher
Surveyed in 1915

Scale 1:62,500
1 0 1 2 Miles
4,000 2,000 0 4,000 8,000 Feet
1 0 1 2 Kilometers

Vertical scale 1 inch = 40 feet
Datum is mean sea level
1916

Subject to adjustment

3 SHEETS
(2 plans, 1 profile)

House Doc. 64th Cong., 2d Sess.

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